

Annual Report | OR 2019

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Appendices to the report are only available in its on-line edition.



| From the chairperson of the BoD

Brynhildur Davíðsdóttir

Reykjavík Energy and its subsidiaries are very aware of their role in society. We are responsible for providing the public with reliable basic services such as water and energy. Fulfilling and exceeding these expectations is a long-term key objective as securing the ongoing delivery of these services, for future generations, requires the careful utilisation of natural resources. Protecting the environment and ensuring the financial health of operations are both prerequisites for ensuring the sustainable future supply of these essential public services.

The corporate world has experienced a dramatic change in recent years as companies and organisations strive to align their strategies and operations with 17 sustainable goals, specifically designed to improve and unite mankind. The United Nations Sustainable Development Goals were ratified in the autumn of 2015 and are accompanied by 169 targets. The three pillars of sustainable development i.e. the economy, society and the environment are the foundation for aligning operations with the new corporate landscape.

The systematic introduction of the UN's Sustainable Development Goals began at Reykjavík Energy in 2017 and is still evolving. We discussed the relevance of the UN Goals to our operations in the 2017 Annual Report and we discussed the accompanying targets in our 2018 report. The Reykjavík Energy Board has now formally agreed to focus on the following sustainability goals:

- **Clean Water and Sanitation**

The first part of Goal 6 is particularly relevant to our operations as we are responsible for ensuring public access to clean water and to safeguarding our indispensable water sources and utilities. An efficient and environmentally friendly sewage system is also an essential part of a sustainable society.

- **Affordable and Clean Energy**

Goal 7 is not just about providing sustainable energy for businesses and the public; it also requires businesses to supply energy that is reliable and affordable. Reykjavík Energy's Ownership Policy supports these aims and we are expected to ensure affordable and competitive prices. Moderate profitability is a key policy at Reykjavík Energy as we believe that profit and risk should be shared by the company's owners and its customers.

- **Responsible Consumption and Production**

The two components of Goal 12 reflect the core policies of Reykjavík Energy and its subsidiaries. Ensuring sustainable consumption and production patterns doesn't just describe what we do, but also how we do it. We think about sustainability opportunities in everything we do. We recycle and reuse, we make demands on suppliers and prevent waste. We apply the same standards to our own products as we do to our suppliers.

- **Climate Action**

Goal 13 is perhaps the most familiar sustainable goal and the most urgent. The world's nations united in ratifying the Paris Agreement on climate change in 2015, promising to take immediate action on the effects of climate change. Energy production and energy utilisation are at the forefront of this world action. Iceland is unequivocally a leader in renewable energy but much still remains to be done in supporting the sustainable transformation of transport. The Reykjavík Energy Group is invested in transport transformation as well as helping as many as we can, to combat climate change, by introducing carbon disposal methods developed by us in collaboration with the University of Iceland and CarbFix.

The decision to focus on these four goals came as a result of the various workshops we held with the Group's employees, the directors within each subsidiary and of course external stakeholders. The stakeholder workshop focused on listening to the expectations of important suppliers, customers, supervisory authorities and other business associates with regard to our contribution to the UN Global Goals. The outcome was slightly different to our internal expectations but we were pleased to see that Goal 12 (Responsible Consumption and Production), which is specifically relevant to suppliers, topped the stakeholder list. The decision to focus on these four goals will be followed up with the regular review of our entire policy, to integrate the goals and their accompanying targets.

If the world achieves its goal of successfully implementing the UN Global Goals, in the next decade, then I am convinced that this will create a trustworthy foundation for humankind to flourish. We must all contribute to the cause, both at the individual and organisational level, especially publically owned entities.

The Reykjavík Energy Board of Directors held 14 formal meetings in 2019. The Board embarked on a tour of the company's operational areas earlier on in the year and held meetings to prepare policy development, resulting in a final Board decision on policy. A presentation was held for new Board Members who then took their seats after the Annual General Meeting. Three owners meetings were also held during the year: The regular finance meeting held in November, a meeting where the election of the Board was discussed and a special meeting to confirm the establishment of a new subsidiary for the CarbFix project. The Board also reviewed its own activities in 2019.

I would like to thank the staff of the Reykjavík Energy Group, its directors and its Board for a successful year of operations.



| From the CEO

Bjarni Bjarnason

The year 2019 proved to be a clear reminder of the importance of ensuring basic services to the public. Utilities such as electricity, domestic heating and clean water are vital to sustaining quality of life in the modern world. Ensuring reliable utility services requires long-term planning in operations and can never be taken for granted.

Stormy winter weather is characteristic of Iceland and always will be. Iceland, like many other modern societies, has built an infrastructure that is heavily reliant on utilities, especially electricity. Domestic heating also relies on electricity, as water is often heated by electricity. In fact, nearly all domestic heating utilities rely to some extent, on electric pumping systems.

Businesses can in many cases be more reliant on electricity than the average home. Modern communication methods require electricity, and business would grind to a halt without it. We were reminded of this in December 2019 when we were hit by heavy storms that disrupted operations and caused extensive damage to structures.

The weather did its best to cause havoc in the capital area but didn't cause any power outages. The distribution system in the capital is powerful and well protected. The Veitur substations are sheltered and most cables have been relocated underground, after years of experiencing damage to overhead lines during winter storms.

However, manmade utilities can never be failure proof. We are currently improving measures to provide our customers with up-to-date information on possible disturbances to the system, as well as identifying new methods for monitoring the 16 thousand kilometres of cables and pipelines that provide our customers with electricity, hot and cold water, access to the fiber network and an efficient sewage system. Disturbances to these systems are inevitable and being well prepared must remain a priority.

Most of West Reykjavík lost its hot water supply for 24 hours in December, due to a fault in the main pipeline. No damage was reported but the incident was an important reminder of what can go wrong. The Reykjavík Group and its directors are responsible for minimizing the risk and frequency of these types of disturbances. The numerical data below shows that the Group is fulfilling these expectations.

One of the most pressing questions is where we can extract the hot water that we need for domestic heating, not just for the next ten years but perhaps the next century. We have experienced water shortages in some of our heating utilities, where the search for geothermal water hasn't been as successful as we hoped. Technical issues have created problems elsewhere. One of our key values at Reykjavík Energy is foresight because the projects we have been entrusted with require long-term thinking and planning. The sustainability of the powerful natural resources we utilize also requires foresight.

Our most valuable natural resource is clean water, which is essential to life. We were reminded of this in 2019 when the water supply in Borgarfjörður was contaminated. We realized that poor weather conditions could affect both the volume and the quality of the water supply. A prolonged dry period had altered the inflow of water to the water source, which was consequently contaminated by the nearby community. This has never occurred before and could be an indicator of what is to come if climate change continues to affect us in the future. However, basic human contamination still poses the greatest threat and we will take any measures required to protect water sources, should they come under threat.

Climate change will have a particularly negative impact on sensitive drainage and sewage systems. Increased rainfall intensity i.e. torrential downpours, could become more frequent and could cause more 'quick thaws'. The drainage system is centre stage during these weather events and must be capable of dealing with increased water load. Actually, we are foreseeing increasingly dealing with rainfall with blue-green surface water solutions instead of conducting to sea through the sewerages. This is both more cost-efficient and more environmentally friendly. Rising sea levels, due to mass thawing in the North Pole and Greenland will also affect the drainage system. Various communities in Iceland are located in areas where drainage and sewage systems are in fact below sea level and require a pumping system to get the sewage into the sea. Climate change isn't the only thing we need to consider when updating the system. Our promise to keep our beaches clean in Iceland has become even more important as swimming in the sea has become a popular sport in the capital area.

The Earth's climate is only one of the changes we will experience in coming years. The many forces that shape the future can pull us in any direction. As technology is changing rapidly, identifying new ways to integrate devices and solutions is a powerful driving force. The need for increased and more frequent communication worldwide is irrefutable and is evolving in a period when the world's political landscape is more complex than it has been for some time. International corporations are growing, and their influence is increasingly felt but, also, the new means of communications have empowered the public and increased its influence on various issues.

We cannot predict how future forces will affect us but there are countless possibilities. However, all future scenarios considered by Reykjavík Energy have one central theme; we are responsible for providing the public with their basic needs. Icelanders are just like any other global citizen as they need water, heating, sewage systems and sufficient electricity to power a significant portion of the equipment and systems that make their daily lives possible. Energy production and utilities will always be a necessity, whatever the future brings.

Reykjavík Energy is focused on converting some of these future dreams into reality. The Group has created a clear policy on e-mobility, footprint-free geothermal energy production, water protection, sewage system improvements, responsible resource management and preventing waste. We place great emphasis on creating a work environment that is free from discrimination and on empowering women to join what has historically been a male dominated sector. We also try our best to keep our prices down. In other words, we encourage sustainability in all areas of our operations.

Financial stability has enabled Reykjavík Energy to stand the test of time and to maintain sustainable operations. Ambitious plans and earnestness can go to waste without the necessary financial support needed to fulfil company objectives. The year 2019 was characterized by large investments in Reykjavík Energy's operations. We carried out extensive work in 2019, including work on the various utilities. We must now be prudent in the next few years and set enough money aside to finance the upgrade of our metering system and to repair the company's headquarters.

2019 was also a year of financial innovation. We issued green bonds and were the first Icelandic company to list the bonds on the Icelandic stock market and OR's bonds were the first green bonds from Icelandic companies offered in open tendering and subsequently listed on the Nasdaq Iceland Sustainable Bonds Market. We believe that this type of financing is more cost-effective than traditional methods but are also aware of the responsibility that goes with it. We must ensure that projects financed with green bonds meet the strictest requirements with regard to their environmental and social impact. Reykjavík Energy's role within society and the nature of our operations enables us to almost exclusively choose green projects. Green bonds must be legitimate. An independent audit organisation gave all of our green bond backed projects their highest rating. We are proud of this achievement. The rating indicates that we are on the right track and still focused on our values of foresight, efficiency and integrity.



29. January 2019

A cold spell tries the heating utility

Veitur Utilities mobilise according to contingency plans because of extended freezing temperatures. Delivery of hot water reaches amounts not seen before, an average of 16,000 metric tons per hour for a 24 hour period. Contingency operations are maintained until February 2nd.

[Read More \(is\)](#)



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5. February 2019

OR issues green bonds

Reykjavík Energy issues its first green bonds to finance a variety of green projects planned by OR and subsidiaries Veitur Utilities and ON Power. The issuance, having received the labelling of "Dark Green" are later registered on the Nasdaq Iceland Sustainable Bond market.

[Read More \(is\)](#)



OR

5. March 2019

Reykjavík Fibre Network publishes claims against Síminn

OR's subsidiary, Reykjavík Fibre Network, makes claims against the communications incumbent Síminn for the amount of ISK 1.3 billion because of Síminn's breach of Iceland's media law.

[Read More \(is\)](#)





4. April 2019

Push for EV infrastructure

At Reykjavík Energy's open annual meeting, the Mayor of Reykjavík signs an agreement with the CEOs of Reykjavík Energy and Vettir Utilities for a combined effort to improve infrastructure in the city for EV owners. Corresponding agreements with the municipalities of Akranes and Gardabaer are made later in 2019.

[Read More \(is\)](#)

15. May 2019

ON supplies a new multi energy station

The president of Iceland commissions Iceland's most diverse Forseti Íslands tekur formlega í notkun nýjustu og fjölbreyttstu fjölkustöð landsins. Orka náttúrunnar kemur að stöðinni með tvennum hætti; rekur þar hraðhleðslur og útvegar vetrni fyrir vetrnsbíla.



[Read More \(is\)](#)



23. May 2019

Women most influential at the OR-Group

Women in Energy, an association of women working at energy and utility companies in Iceland, publish a report on influence of women within the respective companies. It turns out this is most at within the Reykjavík Energy-Group.

[Read More \(is\)](#)

24. May 2019

30 parrs released into Andakilsá River

30 thousand parrs are released into two ponds by Andakilsá River as a part of mitigating actions for the accidental release of sediment from ON Power's reservoir into the river in 2017.



[Read More \(is\)](#)

18. June 2019

MoU on the utilization of CarbFix for Icelandic heavy industries

On the initiative of the Icelandic government, a declaration of intent on capture and sequestration of carbon emissions from heavy industries in Iceland using the CarbFix-method is signed by three ministers and representatives of Reykjavík Energy and the heavy industries in Iceland.



[Read More \(is\)](#)



3. July 2019

Iceland ideal for EVs - a groundbreaking research published

A research by ON Power on the carbon footprint of EVs in Iceland is published. Total life-time footprint of an EV driven 220,000 km. in Iceland is but one-fifth of the footprint of a corresponding vehicle powered by fossil fuels.

[Read More \(is\) ↗](#)

4. July 2019

OR's green bonds listed

Reykjavík Energy becomes the first Icelandic company to have its green bonds listed on the Sustainable Bonds market.

[Read More \(is\) ↗](#)



23. July 2019

Gestur hired as Veitur's CEO

Veitur Utilities' Board of Directors appoints Gestur Petursson as the company's CEO following a public advertisement for applications. Gestur was previously employed as CEO of arrives at Veitur from the position of CEO at Elkem Iceland.

[Read More \(is\) ↗](#)

7. August 2019

"The Snails" and ON Power ride the ring

On the occasion of The Icelandic Republic's Motorcycle Association - The Snails' - 35th anniversary, it combines with ON Power to ride the ring-road of Iceland on electric motorbikes.

[Read More \(is\) ↗](#)



16. August 2019

Veitur Utilities recalculates water tariffs

Following a decision by the ministry for municipal affairs, Veitur Utilities recalculates water tariffs for the year 2016. The amended tariffs extend to three of the municipalities Veitur serves.

[Read More \(is\) ↗](#)



19. August 2019

Sweden's PM visits Hellisheiði Geothermal Power Plant

Stefan Löfven, Sweden's prime minister, visits ON Power's Hellisheiði Geothermal Power Plant to get insight into geothermal utilization in Iceland. Iceland's PM, Katrín Jakobsdóttir, receives her Swedish counterpart along with Reykjavík Energy's Chairwoman, Brynhildur Davíðsdóttir, and CEO, Bjarni Bjarnason.

[Read More \(is\) ↗](#)



20. August 2019

Merkel looks into CarbFix

Reykjavík Energy's Chairwoman, Brynhildur Davíðsdóttir, and CEO Bjarni Bjarnason receive Germany's Chancellor Angela Merkel at ON Power's Hellisheiði Geothermal Power Plant. There, talks take place with the leader on geothermal utilization and carbon mineralization at the facilities.

[Read More \(is\) ↗](#)

30. August 2019

The first homes in Árborg Municipality get fibre connections

The first homes in Árborg Municipality get fibre connections from Reykjavík Fibre Network in accordance with an agreement of intent signed in 2018.

[Read More \(is\)](#)



GAGNAVÍSTA
GAGNAVÍSTA



18. September 2019

Minister for the environment opens Matarsporið

Guðmundur Ingi Guðbrandsson, Iceland's minister for the environment, opens a new web, matarsporið at Reykjavík Energy headquarters. Matarsporið, developed by Efla Consultants in collaboration with OR, is a carbon-footprint calculator for canteens and restaurants.

[Read More \(is\)](#)

25. September 2019

Algaenovation Iceland opens its plant in ON Power's Geothermal Park

Algaenovation Iceland formally opens its algae plant in ON Power's Geothermal Park by the Hellisheiði Power Plant with Iceland's minister for finance, Bjarni Benediktsson, in attendance. The plant utilizes various streams associated with the geothermal power production.

[Read More \(is\)](#)



on
on
on

31. October 2019

Reykjavík Fibre Network collects cases of illegal disconnections

Reykjavík Fibre Network issues a pledge to customers that have experienced instances of illegal disconnection of their fibre thread by a competitor.

[Read More \(is\)](#)



GAGNAVÍSTA
GAGNAVÍSTA

19. November 2019

Increased intensity of energy-shift

ON Power reveals that the company has been awarded public grants supporting the company's plans to install 40 new charging points for EVs, among them 17 super-chargers of 150 MW.

[Read More \(is\)](#)



2. November 2019

Carbon footprint calculator for the general public

Reykjavík Energy and Efla Consultants issue a [web-site](#) allowing the general public to calculate their respective carbon footprint. The web also includes various recommendations of how to reduce it.

[Read More \(is\)](#)



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20. November 2019

Carbon neutral Reykjavík Energy by 2030



OR

Reykjavík Energy's Board of Directors updates its climate goals decides that the group shall be carbon neutral by year 2030. Orkuveita Reykjavíkur einsetur sér að verða kolefnishlutfalls árið 2030. Þetta er metnaðarfyllra markmið en fyrirtæki hafði áður sett sér. Aukin förgun og hagnýting koltvioxíðs frá jarðgufuþirkjunum Orku náttúrunnar mun vega þyngst í markmiðið náist.

[Read More \(is\)](#)

21. November 2019

Increased mineralization of CO2

ON Power announces the company will multiply the amount of CO2 mineralized in the Hengill geothermal area. There, ON Power operates two geothermal power plants and the greenhouse gas comes along with the geothermal fluid extracted from the area. Instead of emitting it, the CarbFix method has been employed to mineralize the CO2 on-site. These efforts are now to be enhanced and ON Power carbon-neutralized by 2030.

[Read More \(is\)](#)



on

5. December 2019

Increased UV-lighting of water from Heiðmörk

Veitur Utilities install UV lamps at Heiðmörk water reserves to improve the security of healthy water supply from the area. The shallowest boreholes there are most prone to infection of bacteria which are disabled by the UV light.

[Read More \(is\)](#)

11. December 2019

Enormous data flow during a storm

During a forceful storm in Iceland, Reykjavík Fibre Network see a record of data-flow through its fibres. As people seem to keep indoors, fetching information and leisure on the internet, the stream of data through the system increases by 25% and has never been heavier.

[Read More \(is\)](#)



GÁNAKESTA

12. December 2019

Veitur Utilities sends reinforcements to colleagues

As gale-force winds and icing severely disrupt electric grids in northern Iceland, Veitur Utilities send specialized staff to the aid of the power companies operating there. Veitur's own grid is unaffected by the storm but its linemen and -women are working in the north for a week.

[Read More \(is\)](#)

12. December 2019

Roll-out of fibre to homes in the urban capital area completed

Reykjavík Fibre Network's cables now reach every home in the urban part of all the municipalities of the Capital Area; Reykjavík, Kópavogur, Hafnarfjörður, Seltjarnarnes, Garðabær, Hafnarfjörður, and Mosfellsbær. The mayors of the municipalities celebrate this important milestone.

[Read More \(is\)](#)



GÁNAKESTA



17. December 2019

OR tenders for the rebuilding of its headquarters

Reykjavík Energy's Board of Directors resolves to tender for the reconstruction of the company's headquarters at Bæjarháls in Reykjavík. The office building was found to be partially damaged by moisture.

[Read More \(is\) ↗](#)

21. December 2019

An extensive hot-water outage in Reykjavík

A hot-water main in Reykjavík brakes and most of the western part of the city is without heating. Reparations go smoothly and the outage lasts for 10 hours.

[Read More \(is\) ↗](#)



VEITUR

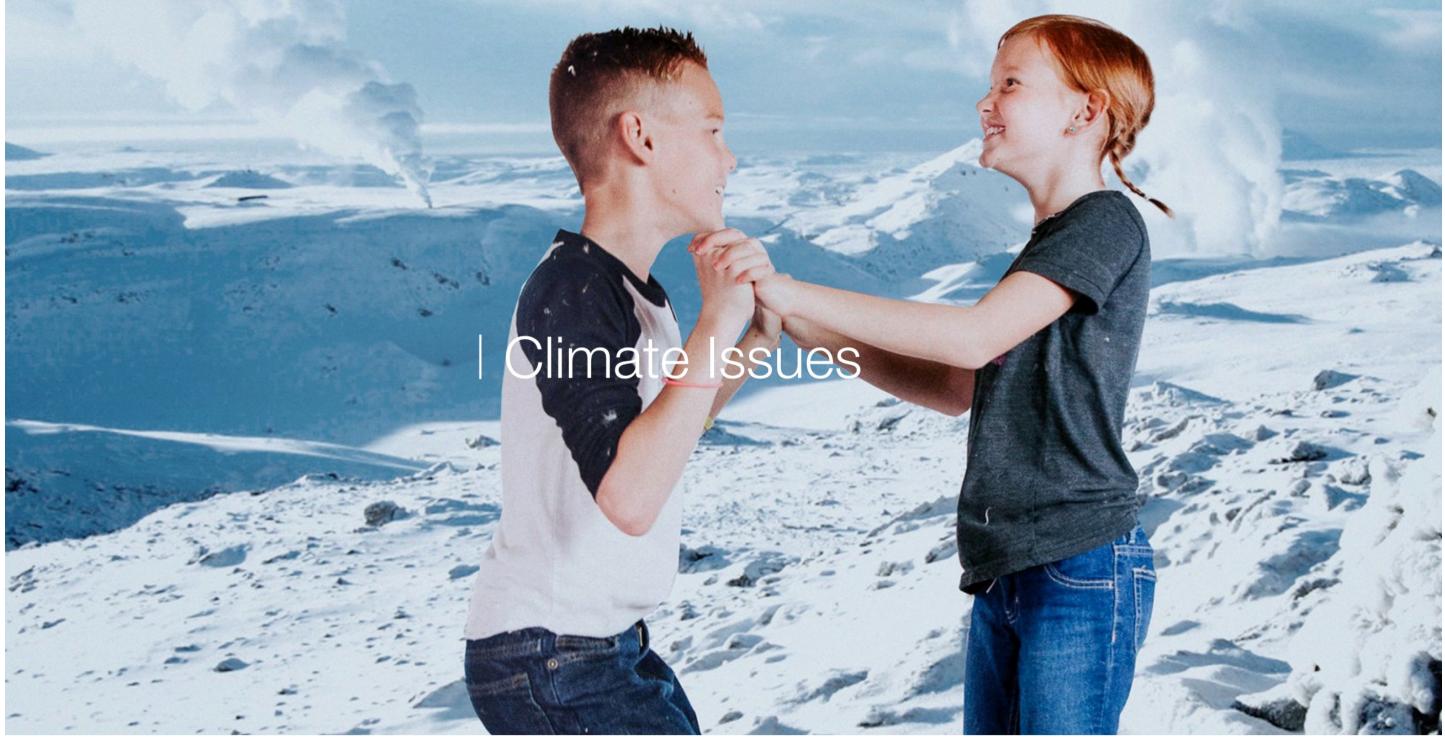


27. December 2019

A new subsidiary established around CarbFix

A Reykjavík Energy Owners' meeting ratifies the BoD's decision to establish a special fully-owned subsidiary to enhance the penetration of the CarbFix-method for mineralization of CO₂. Dr. Edda Sif Pind Aradóttir, who has been project manager for CarbFix, is the CEO of the newly established public limited company.

[Read More \(is\) ↗](#)



| Climate Issues

The Group is one of the biggest companies in Iceland and the performance of Reykjavik Energy (RE) and its subsidiaries in environmental issues therefore matters a great deal. The Group has been at the forefront of innovation and development on climate issues over the past decades. The CarbFix process, which has been applied at the Hellisheiði Geothermal Power Plant, is a clear demonstration that it is possible to take measures to reduce greenhouse gas emissions and the climate risks we are facing. In December 2019, the establishment of CarbFix, a new subsidiary of Reykjavik Energy, was endorsed by its owners, i.e. the municipalities of Reykjavík, Akranes and Borgarbyggð.

Climate issue priorities of the Reykjavík Energy Group:

- The goal is to achieve carbon neutrality by 2030, which is ten years sooner than had been previously planned.
- CarbFix, a new subsidiary of Reykjavik Energy, working on increasing the sequestration of carbon dioxide both domestically and globally
- Be a driving force in energy switching in transport

In the autumn of 2019, Reykjavik Energy and the EFLA Consulting Engineers company made an [online carbon footprint calculator](#) accessible to all so that everyone can calculate their carbon footprint in a swift and simple manner. It then provides advice on how the carbon footprint can be reduced on the basis of the data that has been entered. We all share a responsibility for tackling the threats of climate change. The state and municipalities have to do their share, businesses need to take action, and each and everyone of us can throw their weight behind making the earth liveable for future generations.

The section which deals with climate issues focuses on greenhouse gas emissions from operations and examines the projects undertaken to ensure the target of carbon neutrality by 2030 is met.

E1 Greenhouse Gas Emissions

OR

13 SDGs

7

9

SDGs

Promotes UN's Sustainable Development Goals

Climate Change Objectives of the Reykjavik Energy Group

The Reykjavik Energy Group aims to achieve carbon neutrality by 2030 (see graph).

The application of the CarbFix method, where carbon dioxide is mixed with water and injected into basaltic bedrock at the Hellisheiði and Nesjavellir geothermal power plants, will be the main driving force behind the reduction of greenhouse gas emissions (GHG) from the Group. Other key projects that will play a crucial role in GHG reduction include the green transformation of our company vehicle fleet (switching to electricity and methane) and the utilisation of carbon dioxide in the geothermal park at the Hellisheiði Geothermal Power Plant. Veitur Utilities is also working on projects to boost the resilience of utility systems, due to the threat of climate change.

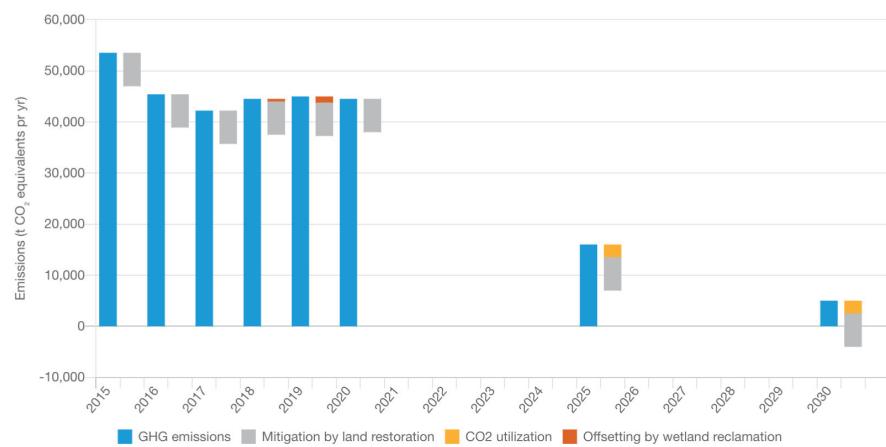
The Reykjavík Energy Group provides 45 to 75% of Icelandic households with water, sewerage systems, district heating and the fiber network. Carbon dioxide emissions from our operations have decreased substantially since 2015. GHG emissions are calculated in accordance with the Greenhouse Gas Protocol – Corporate Accounting and Reporting Standard.

See more details on Reykjavik Energy's climate change objectives, and their progress in the appendices.

In 2019, the percentage of reinjected and sequestered carbon dioxide from the Hellisheiði Geothermal Power Plant amounted to about 25% of emissions from the plant, which is considerably less than in 2018. This can mainly be attributed to the fact that the hydrogen sulphide abatement unit at the plant had to be halted for a prolonged period, due to expansion work on the district heating utility and unforeseen malfunctions. Emissions from our vehicle fleet and employee air travel were slightly above target (see annex). Reducing emissions and waste is an ongoing project and we must continue working as a team to achieve our objectives.

The executive board approved measures to offset carbon emissions from the Group's vehicle fleet in November of 2019. The objective will be achieved through the reclamation of wetland areas (the Wetland Fund).

GHG emissions and mitigations 2015-2030



Direct & Indirect GHG Emissions

In 2019, Scope 1, or direct emissions from Reykjavik Energy Group's core operations, amounted to 43,500 tonnes of CO₂ equivalent. These emissions can be traced to electricity and hot water production at ON's geothermal power plants, geothermal utilisation in the low-temperature fields of Veitur Utilities for district heating purposes (considered negligible), from HFC substances in Veitur's Utility systems, from our vehicle fleet and the Group's buildings. There were no indirect emissions due to the use of electricity and heat in the core operations of the Reykjavik Energy Group (Scope 2) as the Group produces electricity for the national grid and these emissions are already accounted for in Scope 1. No emissions are specified in Scope 2; to avoid double registering . Scope 3, or indirect emissions from waste produced by the core operations of the Group, as well as employee travel to and from work, including air travel, amounted to 1,500 tons of CO₂ equivalent. There is no exhaustive data on Scope 3 because the production phase is not included.

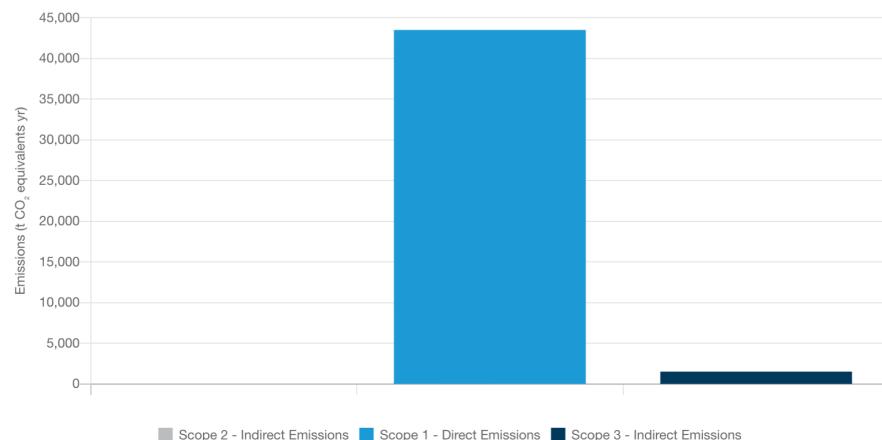
Scope 1 - Direct emissions: Geothermal power plants (ON Power), supply pipeline and distribution system of Veitur Utilities, vehicles.

Scope 2 - Indirect emissions: Energy usage i.e. electricity and heating for own use and transmission losses in distribution systems. Included in Scope 1, as accounted for the Group.

Scope 3 - Indirect emissions: Waste, employee air travel and employee travel.

The Reykjavik Energy Group produces approx. 1% of Iceland's total GHG emissions, based on total emissions recorded in 2017 (Environment Agency of Iceland, 2019).

Direct & Indirect GHG Emissions 2019



My carbon footprint

9.74

tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Jón Tryggvi Guðmundsson

Sewerage system specialist in technology and operations,
Veitur Utilities

The results don't really surprise me. I thought that travel would weigh heavier than consumption and food. It was interesting to see the breakdown of the carbon footprint into categories because that helps us to be aware of the biggest footprints, so that we can take action to reduce them. There are so many to consider, when

using the carbon calculator.

E2 Emission Intensity

OR



Promotes UN's Sustainable Development Goals

Carbon intensity is understood as the level of carbon emissions relative to each operating unit, e.g. income, production units, etc.

Carbon dioxide emission intensity

Based on the revenue and size of the premises of the Reykjavik Energy Group, the Group's carbon intensity has contracted since 2015, or from about 1,800 CO₂ equivalents to 950 tons of CO₂ equivalents.

ON Power produces electricity and hot water, which is sold wholesale to Veitur Utilities. The carbon footprint for each produced unit of electricity and hot water at ON Power has decreased since 2015.

Veitur Utilities provide electricity, hot water and potable water to consumers and also manages the sewerage system. The carbon footprint from the distribution of all of the above, has decreased since 2015.

The carbon footprint from Reykjavik Fiber Network's fiber optic data transmission has decreased since 2015.

Please note that the unit for electricity and hot water is in kWh, cold water is m³, sewerage systems in 'per person' units and fiber optics data transmission is in gigabytes

The margin of error for discharge is 5%.

The Reykjavik Energy Group does not emit any ozone-depleting substances in its activities.

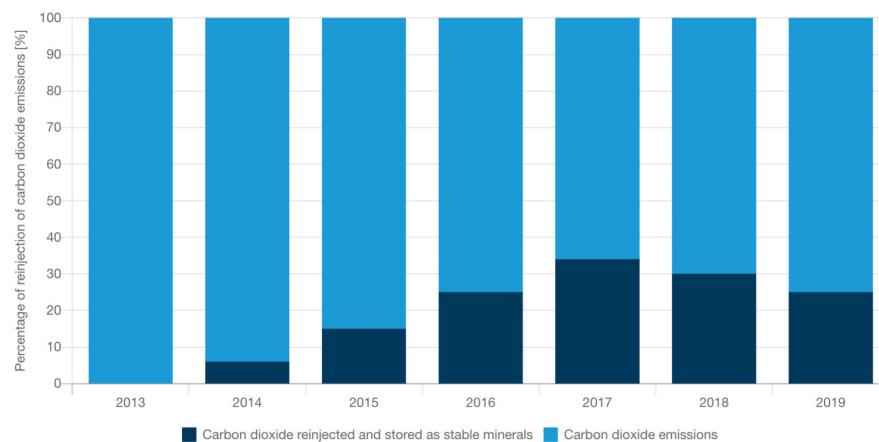
Description	Unit	2015	2016	2017	2018	2019
Greenhouse gas emissions (scope 1, 2 og 3) without land use mitigation	t of CO ₂ e per year	72,300	45,400	42,200	44,500	44,800
Revenues	ISK Billion	40.3	41.4	44.0	46.3	46.3
Size of premises	Thousand m ³	780	780	780	780	780
Carbon intensity per unit of revenue	t of CO ₂ e per year/ISK billion	1,794	1,097	959	969	968
Carbon intensity per unit of premises	t of CO ₂ e per year/thousand m ³	92	61	57	57	57
Potable water:						
Carbon intensity per produced unit of potable water and distribution	g CO ₂ e per year/m ³	11.7	9.5	7.4	7.8	7.1
Hot water for space heating:						
Carbon intensity per produced unit of hot water from low temperature fields*	g CO ₂ e per year/kWh	~0	~0	~0	~0	~0
Carbon intensity per produced unit of hot water from geothermal power plants	g CO ₂ e per year/kWh	9.8	8.3	7.5	7.4	7.5
Carbon intensity of hot water distribution	g CO ₂ e per year/kWh	0,8	0,8	0,7	0,9	0.
Weighted average of carbon intensity for hot water (Veitur Utilities)	g CO ₂ e per year/kWh	4.4	3.6	3.2	3.2	3.2
Electricity:						
Carbon intensity per produced unit of electricity at power plants**	g CO ₂ e per year/kWh	10.4	8.9	8.1	7.4	7.5
Carbon intensity per unit of distributed electricity	g CO ₂ e per year/kWh	1.0	1.0	1.0	1.2	0.8
Total carbon intensity per unit of produced electricity (ON Power) and distributed electricity (Veitur Utilities)	g CO ₂ e per year/kWh	11.4	9.9	9.1	8.7	8.3
Wastewater systems:						
Carbon intensity per population equivalent (p.e) of wastewater systems	g CO ₂ e per year/p.e.	1,041	790	775	998	480
Data transmission through the fibre network:						
Carbon intensity on data transmission through fibre network	g CO ₂ e per year/gigabyte	0.7	0.7	0.7	0.7	0.5

*Carbon footprint approximately 0 g/kWh.

**According to the Iceland Inventory Report, the weighted average of greenhouse gas emissions per kWh of electricity, produced by hydro power and geothermal energy in Iceland, in 2017 was 8.8 g. For hydroelectric power, greenhouse gas emissions per kWh of electricity amounted to 1.5 g and for geothermal energy 29 g.

In terms of percentages, the re-injection of carbon dioxide from the Hellisheiði Geothermal Power Plant was 25% and was somewhat lower than in 2018 as the hydrogen sulphide abatement unit at the plant had to be halted for a prolonged period, due to work on the expansion of the district heating utility of the plant and unforeseen malfunctions.

Annual percentage of reinjection of carbon dioxide emissions from the Hellisheiði geothermal power plant in 2013-2019



Emission intensity of hydrogen sulphide

In relation to the turnover of the Reykjavík Energy Group, the emission intensity of hydrogen sulphide in the Group contracted since 2015, i.e. from 367 to 274 tons of hydrogen sulphide, see table.

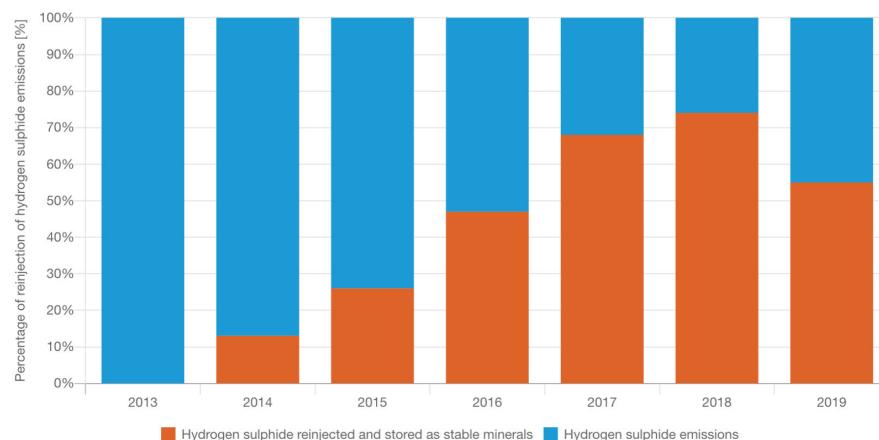
The concentration of hydrogen sulphide (H₂S) in populated areas did not exceed limits in Nördlingaholt, Lækjarbotn and Úlfarsárdalur, but exceeded the limit once in Hveragerði in 2019. The re-injection of carbon dioxide from the Hellisheiði Geothermal Power Plant was 65%, or somewhat lower than in 2018 because the hydrogen sulphide abatement unit at the plant had to be halted for a prolonged period, due to work on the expansion of the district heating utility of the plant and unforeseen malfunctions.

Hydrogen sulphide emissions from the Nesjavellir and Hellisheiði geothermal power plants amounted to 12.7 thousand tonnes in 2019. The margin of error for discharge is 5%.

A plan has been developed for emission-free production at ON Power's plants in the Hengill area.

Lýsing	Eining	2015	2016	2017	2018	2019
Losun brennisteinsvetnis	Tonn	14,800	11,900	9,700	9,500	12,800
Framleiðsla rafmagns	kWst	3,249,250,000	3,411,110,000	3,473,297,000	3,506,531,000	3,537,972,000
Losun brennisteinsvetnis á framleidda einingu rafmagns	gr. H ₂ S/kWst	5.7	4.7	3.8	3.4	3.6

Annual percentage of reinjection of hydrogen sulphide emissions from the Hellisheiði geothermal power plant in 2013-2019





My carbon footprint

11.30 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Bellinda Eir Engilbertsdóttir

Land specialist, Reykjavík Energy

It's difficult to understand our carbon footprint and the radical measures each and every one of us needs to take to keep global warming within limits. I live in Akranes but work in Reykjavík and travel in between by carpooling or I work from home. I don't think I can reduce my travel carbon footprint any more than I already have. Consumption is clearly something I really need to look into. I must consider each purchase and decide if it is necessary or not. The future of coming generations is determined by the decisions we make today!

E3 Energy Usage

OR



13



13



13



13

Promotes UN's Sustainable Development Goals

The Reykjavík Energy Group produces electricity and hot water from renewable energy sources such as geothermal energy and hydropower. 9% of the electricity and about 1% of the hot water are own use.

Fossil fuels, particularly diesel oil, are used during construction and in our operations. All fossil fuel consumption is third party and therefore indirect.

The percentage of direct energy consumption (electricity and hot water) of the Reykjavík Energy Group is 99.9% and indirect energy consumption (fossil fuels and methane) is 0.1%, (see figure).

Primary energy consumption is expressed in megajoules (MJ), for comparison purposes (see table).

Direct primary energy use (own use) of the Reykjavík Energy Group						
Reykjavík Energy Group	Unit	2015	2016	2017	2018	2019
System:						
Electricity	MJ	52,57,772,000	5,404,789,000	5,626,032,000	5,544,412,000	5,580,586,900
Hot water*	MJ	220,467,000	177,323,000	273,099,000	207,700,000	193,540,500
Transport:						
Methane	MJ	411,000	563,000	867,000	795,000	1,279,200
Petrol**	MJ	940,000	801,000	572,000	4760,00	370,100
Diesel oil**	MJ	6,393,000	6,738,000	6,524,000	6,113,000	6,026,900

* Primary energy use: Based on utilisation down

to 5°C

** Calculation quotients: Based on their lower

heat value

E4 Energy Intensity

OR



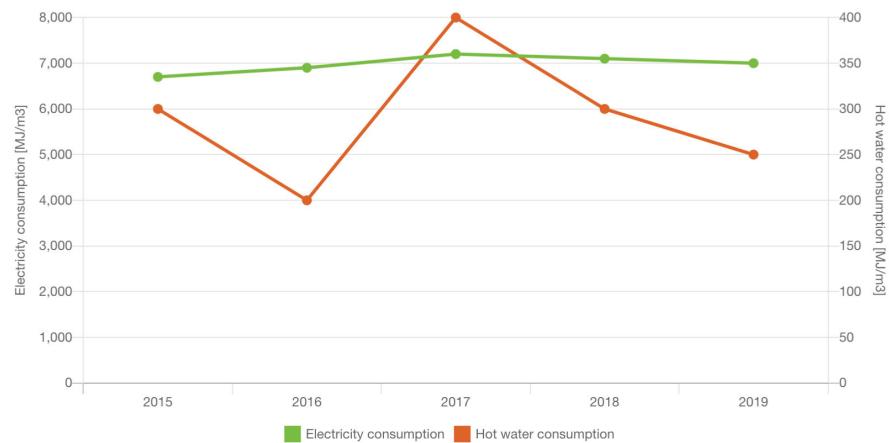
Promotes UN's Sustainable Development Goals

Direct energy consumption in each operating unit, e.g. size of premises, average equivalent unit, is sometimes called energy intensity.

Our own use of electricity is solely for the production of hot water, the pumping of sewage, hot and cold water and the operation of our premises. Own electricity consumption in relation to the size of our premises has increased somewhat since 2015 and hot water usage has decreased.

The primary energy consumption is expressed in megajoules (MJ), for comparison purposes.

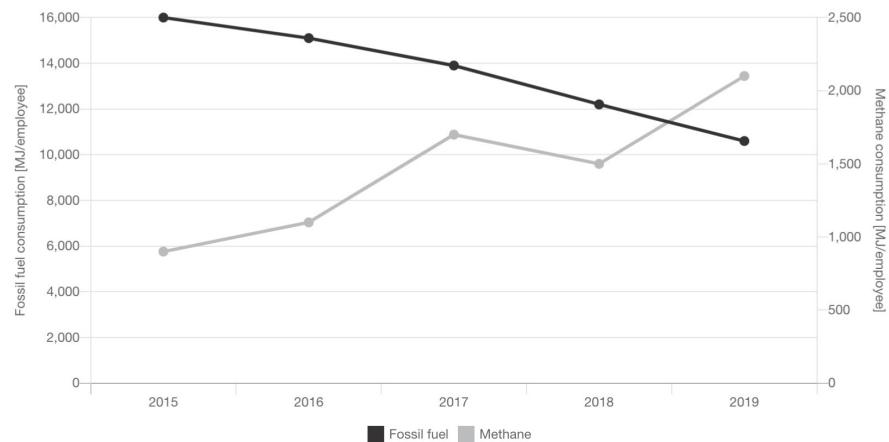
RE's electricity and hot water consumption per unit of premises



Energy consumption per position has decreased when compared with 2015, whereas the use of methane has increased (see figure and table).

Primary energy consumption is expressed in megajoules (MJ), for comparison purposes.

RE's fuel consumption per employee



Carbon indicators	Unit	2015	2016	2017	2018	2019
Electricity (direct primary energy use)	MJ	5,257,772,000	5,404,789,000	5,626,032,000	5,544,412,000	5,580,587,000
Hot water (direct primary energy use)*	MJ	220,467,000	177,323,000	273,099,000	207,700,000	193,540,500
Size of premises	Thousand m ³	780	780	780	780	780
Employees	Number	458	498	509	541	601
Methane	MJ	411,000	563,000	867,000	795,000	1,279,000
Fossil fuel**	MJ	7,333,000	7,539,000	7,096,000	6,589,000	6,397,000
Premises:						
Electricity	MJ/m ³	6,700	6,900	7,200	7,100	7,200
Hot water	MJ/m ³	300	200	400	300	200
Employees:						
Electricity	MJ/employee	11,480,000	10,853,000	11,053,000	10,248,000	9,286,000
Hot water	MJ/employee		356,000	537,000	384,000	322,000
Methane	MJ/employee		1,100	1,700	1,500	2,100
Fossil fuel	MJ/employee	16,000	15,100	13,900	12,200	10,600

* Primary energy use: Based on utilisation down to 5°C

** Calculation quotients based on their lower heat value

E5 Energy Mix

OR



Promotes UN's Sustainable Development Goals

Primary Energy Source

The Reykjavik Energy Group produces electricity and hot water for district heating by utilising renewable energy sources such as geothermal energy and hydropower. Part of this energy is used by the Group for its own operations. Electricity and hot water are the main sources of energy used for operations and are 99% renewable. Primary energy use is expressed in mega joules (MJ), for comparison purposes.

Energy use	Unit	2015	2016	2017	2018	2019
Electricity (direct primary energy use)*	MJ	5,257,772,000	5,404,789,000	5,626,032,000	5,544,412,000	5,580,587,000
Hot water (direct primary energy use)*	MJ	220,467,000	177,323,000	273,099,000	207,700,000	193,540,500
Methane	MJ	411,000	563,000	867,000	795,000	1,279,000
Fossil fuel	MJ	7,333,000	7,539,000	7,096,000	6,589,000	6,397,000
Total energy use	MJ	5,485,983,000	5,590,214,000	5,907,094,000	5,759,496,000	5,781,804,000
Percentage of renewable energy of total energy use	%	99.9	99.9	99.9	99.9	99.9

* Primary energy use is based on utilisation down to 5°C

We monitor the impact of climate change on our operations. Climate change could affect the resilience of utility systems which would subsequently have a direct impact on the company's ability to operate and provide crucial services to the public. See a detailed discussion on the impact of climate change in [Section E8](#) on climate change monitoring by the Board and [Section E9](#) on climate change monitoring by the Executive Board.

Renewable Energy Intensity

Energy consumption in each operating unit, e.g. income, production units, etc. are sometimes called energy intensity.

The renewable energy intensity of the Reykjavik Energy Group is high. For every mega joule (MJ) that we use of non-renewable energy, we use 900 MJs of renewable energy.



My carbon footprint

15.76 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Dace Liapina

Project manager, Reykjavik Fibre Network

The high carbon footprint surprised me when I saw it. I just wasn't sufficiently aware of it. I clearly need to reduce my consumption habits, buy fewer unnecessary things and clothes and reduce my trips abroad.

| E8 Climate Oversight / Board

Reykjavik Energy Group's Board of Directors oversees and manages climate-related risk for the Group.

In 2019, the Board requested information on the potential impact of climate change on operations and this data is currently being compiled. The Board approved the objective of achieving carbon neutrality by 2030 in a meeting held in November, 2019. Implementation work within the various units is underway.

The Board approved the establishment of the publicly owned company 'CarbFix', in the autumn of 2019. CarbFix specialises in sequestration methods used at the Hellisheiði Geothermal Power Plant, with promising results. The establishment of the company was endorsed by its owners, i.e. the municipalities of Reykjavik, Akranes and Borgarbyggð in December of 2019.

| E9 Climate Oversight / Management

Reykjavik Energy Group's Executive Board oversees and manages climate-related risk for the Group.

The Group has mapped out the impact of climate change on operations, focusing on utility systems and potential adjustments needed to accommodate extreme precipitation, quick thaws, temperature changes and rising sea levels. Water utilities monitor microbial contamination in potable water, in real time, to be able to respond accordingly and to ensure quality. Our hot water utilities evaluate the future demand for hot water and also seek out new ways to increase efficiency. These are all necessary steps in ensuring the security of supply. Sewerage system utilities monitor sea level forecasts for future planning purposes. Sustainable Drainage Solutions (SuDS) are used to channel and filter rainwater from roads before it flows into rivers and lakes. This also boosts biodiversity and enhances the urban environment.

These projects are both mitigation measures and preparation for climate change. Veitur Utilities, a subsidiary of Reykjavik Energy, is responsible for their implementation, in collaboration with the municipalities.

| E10 Climate Risk Mitigation

Reykjavik Energy funded green projects for a total of ISK 13 billion in 2019. ISK 1.5 billion was spent on new projects, including power production from renewable energy sources, expansion of district heating utilities, water protection and sewerage system improvements, the IOT of utility systems, carbon sequestration and projects to boost the resilience of utility systems. This funding amounts to 30% of the Group's turnover.

The CarbFix process, used to successfully remove carbon dioxide from the Hellisheiði Geothermal Power Plant, started as an innovation and development project in 2007. The cost of the development and management of this process has so far amounted to ISK 7 billion. CarbFix has received approx. ISK 5 billion in grants. Reykjavik Energy Group's net contribution to CarbFix and related projects is over ISK 2 billion. The CarbFix project is proof that time and funding can help environmental and climate change projects become a reality.



My carbon footprint

7.91

tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Olgeir Gunnsteinsson

Malfunction detection specialist, Veitur Utilities

The result didn't surprise me much, apart from my high consumption rate, since I rarely buy unnecessary things. I also think that the consumption of unnecessary products and food waste in society as a whole are quite underestimated in this debate, since these factors have a direct impact on calculations. I cycle to and from work and rarely go abroad, unless it's work-related.

The Electrification of Transport



7

ENERGY

7

CLIMATE

9

WATER

11

INDUSTRY

13

CLIMATE

3

INDUSTRY

Promotes UN's Sustainable Development Goals

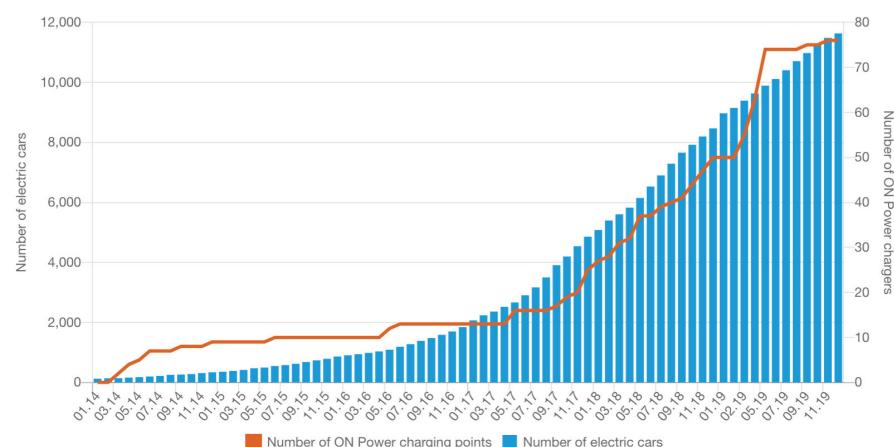
The reduction of emissions from transport is a great opportunity for Icelanders to tackle climate change and improve air quality in populated areas. Reykjavik Energy and its subsidiaries can contribute to this green transformation by supporting the electrification of Iceland's transport system.

An agreement on the development of city infrastructure to facilitate the electrification of the city's transport system was signed between the City of Reykjavik, Orkuveita Reykjavikur and Veitur Utilities in the spring of 2019. Veitur Utilities will provide grid connections for charging equipment at various Reykjavik City premises and at charging points requested by the public. Reykjavik Energy and the City of Reykjavik also established a fund to support the installation of charging points in multi-dwelling buildings. ISK 19.5 million was granted from the fund in 2019. Veitur and OR then entered into corresponding agreements with the municipalities of Akranes and Gardabaer in 2019. Design and tendering began in 2019 and construction in the beginning of 2020.

The roll-out of ON Power's fast-chargers along highways and in urban areas has demonstrated that electric cars are a real choice for people and businesses. ON Power is at the forefront of building infrastructure for the energy-shift in transport in this country. There are now over 80 ON charging points, all over Iceland. ON also provided charging points for a number of private companies and institutions, half of which will be used by the public.

The Energy Fund allocated grants in two categories; for the development of charging equipment for hotels and accommodation all over the country and for the development of fast-charging equipment for public use. ON Power received the highest grant in both categories because of its successful history in implementing these types of projects.

The number of electric cars in Iceland and ON Power charging points



Planned charging-point installations of ON Power		
Spuer chargers (150 kW DC)	Fast-charger (50 kW DC)	Carging-points (AC)
Staðarskáli (2)	Skjöldólfssstaðir á Jökuldal	About 20 hotels all over Iceland
Varmahlíð (2)		Capital Area (6)
Akureyri (1)		West-Iceland (4)
Mývatnssveit (2)		Westfjords (1)
Egilsstaðir (2)		South-Iceland (5)
Höfn – Nesjar (1)		East-Iceland (2)
Hvolsvöllur (1)		North-Iceland (2)
Kirkjubæjarklaustur (2)		
Selfoss (2)		
Reykjanes – airport area (2)		

Innovation and Development Projects



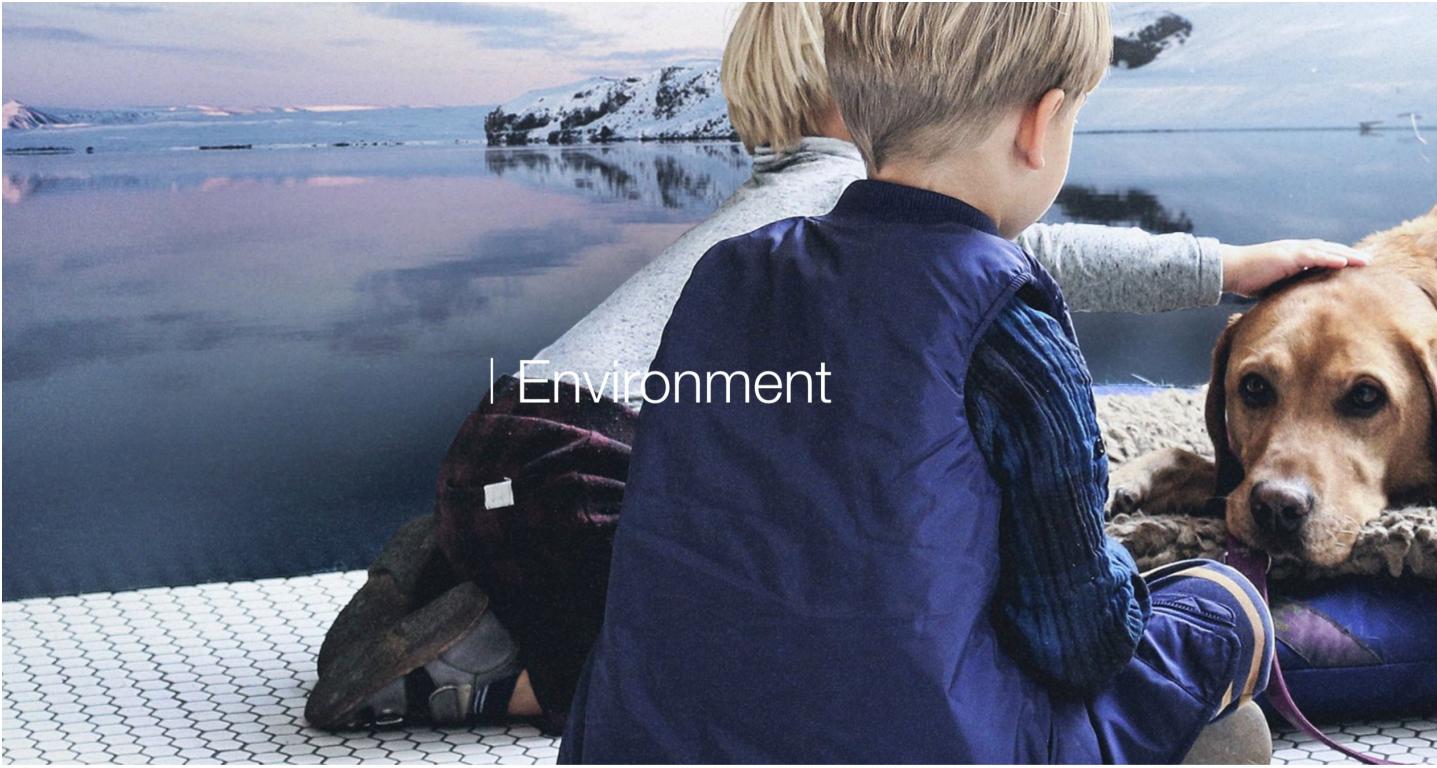
Promotes UN's Sustainable Development Goals

The Reykjavik Energy Group has been at the forefront of innovation and development on climate issues for the past decade. Lower carbon dioxide emissions from the Hellisheiði Geothermal Power Plant using the CarbFix and SulFix reinjection methods, the installation of charging stations for electric vehicles (EV), the green transformation of our fleet and carbon sequestration measures at ON sites are clear examples of this.

This work is being conducted in accordance with multiple collaboration agreements and plans in the field of science and technology in the university community, both domestically and abroad. The collaboration of the business sector and the academic community is often a platform for the development of ideas into concrete projects that can prove useful to the business community.

Examples of promising projects of this kind that have been launched can be seen below and in the appendix:

- Carbon footprint-free production of geothermal energy
- Ongoing development of rock carbon sequestration measures
- The green transformation of transport in Iceland
- Experiments in the production of hydrogen as an energy source at Hellisheiði
- Geothermal well stimulation in Geldinganes
- Impact of forestry on carbon stocks, in forest soil, on Reykjavík Energy land



| Environment

The Reykjavik Energy Group is among the largest companies in Iceland. The performance of the Group in environmental matters is therefore important. The Group has worked systematically at reducing the negative effects of its operations on the environment and nature. The SulFix process, through which hydrogen sulphide is sequestered in rock, and the restoration of disturbed areas with local vegetation, which are applied at the Hellisheiði Geothermal Power Plant, clearly demonstrate that it is possible to take measures to reduce the negative effects on the quality of the air and land in an eco-friendly and cost-effective manner.

The main environmental projects can be seen in the following list. The operations of the Reykjavik Energy Group are certified in accordance with the ISO 14001 environmental management system. The Group regularly submits reports to licensing authorities, i.e. the health authorities, the National Energy Authority and the Environment Agency.

Environmental priorities of the Reykjavik Energy Group:

- To emphasise water protection, the responsible management of water resources and ensure the long-term supply of potable water
- Show responsible handling and management of low-temperature resources
- Show responsible handling and management of high-temperature resources, to reduce hydrogen sulphide emissions and discharge geothermal water in a responsible way
- Show responsible handling and management of waste water systems
- Handle waste in a responsible way
- To continue to apply effective procedures to restore disturbed areas
- To play an active role in promoting climate-friendly transport

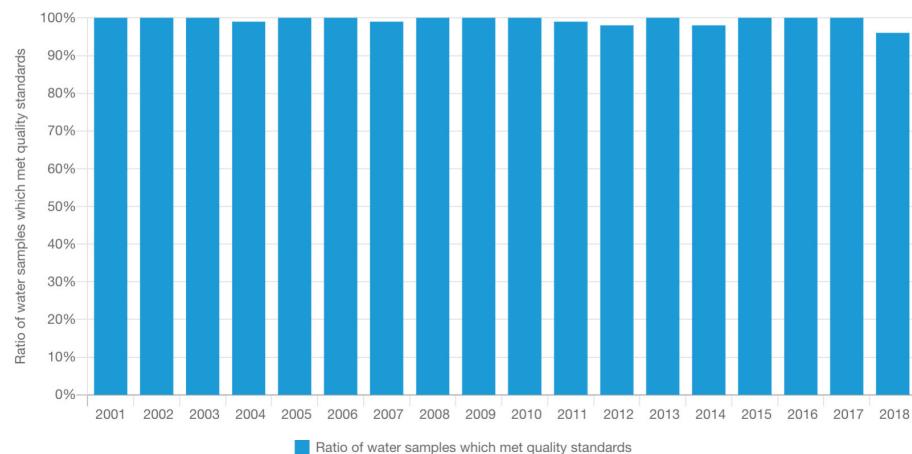
Water Protection and Water Management



Promotes UN's Sustainable Development Goals

In 2019, Veitur Utilities ensured the supply of potable water to residents and the business community in the distribution area, in accordance with established quality standards and the statutory and regulatory provisions and objectives of Veitur Utilities.

Quality of potable water in Reykjavík



Veitur Utilities has thirteen water sources and ON Power has two water sources. The water utilities' distribution system caters for up to 45% of the nation.

Thaws and precipitation can cause microbial contamination in water extraction wells. In the autumn of 2019, micro-organism measurements exceeded the limit in two water samples from boreholes in Grábrók in West Iceland and one sample from the distribution system. This could be attributed to surface water mixing with groundwater, as a result of high levels of precipitation, after a very dry summer in 2019. Veitur Utilities has installed an ultraviolet (UV) light for cold water from water sources at Grábrók and a portion of the water supply in Heiðmörk. Micro-organisms that may be carried in the water sources are therefore destroyed before the water is fed into the distribution system. Water from boreholes in the so-called lower zones of water extraction areas also go through the UV lighting equipment. These measures are not necessary in the deeper wells in Heiðmörk. The UV illumination of the water only incapacitates the micro-organisms, but does not prevent other kinds of contamination.

Water conservation

Water conservation areas are delimited around the water sources of Veitur Utilities. Water protected areas are monitored with regard to, among other things, the transport of oil, petrol and other hazardous substances in Heiðmörk. Accidents and incidents caused by dangerous behaviour within protected water areas are registered and discussed and action is taken as appropriate. Veitur employees and contractors, working on projects in protected areas, take environmental courses before projects commence to prevent contamination accidents. This requirement is stipulated in the tender documents.

Veitur Utilities has consulted with the Icelandic Road and Coastal Administration (IRCA), the Association of Local Authorities and local health inspectorates about the closure and improvement of roads, in addition to further groundwater research in the area, to reduce the risk of oil and hazardous substance accidents in protected water zones within the capital area.

Microplastics

Very few microplastics are found in Veitur's water sources according to research conducted by ReSource International ehf. (RI). Samples were taken from boreholes, water sources, water tanks and distribution systems. Microplastic particles were found in half of the samples in the distribution system, but less in the boreholes and water tanks. The median average in water samples was one particle per 10 litres of water. Research conducted by ORB Media, on potable water around the globe, which was published in 2018 found an average of 50 microplastic particles per 10 litres of water. A report published by the World Health Organization (WHO) in August 2019 states that, despite the shortage of data, particularly regarding very small microplastic particles, there are no indications that they pose a danger to human health. WHO points out that further research is required.



My carbon footprint

7.28 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Marta Rós Karlsdóttir

Head of Natural Resources, ON Power

The carbon footprint of an individual should, roughly-speaking, be under 1.5 - 2 tons of CO₂-equivalents per year to keep global warming within the limits set by the Paris Agreement. My carbon footprint is therefore too high! The greatest opportunities to reduce my footprint are for me to reduce consumption and eat fewer animal products. I've become more careful in both my choice of products and consumption because with increased knowledge, more accessible information about environmental impacts and, not least, the increased availability of eco-friendly and sustainable products, it is becoming much easier to make better decisions.

| E6 Water Usage

Own use

In 2019, Reykjavik Energy Group's production of cold water amounted to over 29 million m³ and hot water amounted to around 92 million m³. Of the 92 million m³ of hot water produced, 39 million m³ was cold water, which was heated in ON Power's plants in the Hengill area. The rest was hot water from low-temperature areas.

Reykjavik Energy Group's own use of cold water was about 72 million m³ and hot water use was over 646 thousand m³.

All of the thermal energy used to heat buildings in Hellisheiði is part of a closed system. The same water is recirculated and the use of thermal energy is not measured. The Reykjavik Energy Group's own use of cold water is almost exclusively for ON Power's geothermal power plants in the Hengill area. Nearly 72 million m³ of cold water was pumped in 2019, almost 39 million m³ of which was utilised for thermal production such as domestic heating in the greater Reykjavik area. 33 million m³ was used for power plant operations and the cooling of equipment (about 46%).

The percentage of Veitur Utilities's own use of hot water is very low in relation to the volume produced. Veitur Utilities places an emphasis on minimising energy consumption and waste in its utility systems.

Recycling

60% of the geothermal water from the Hellisheiði Geothermal Power Plant and 90% of the geothermal water from the Nesjavellir Geothermal Power Plant has been reinjected into the geothermal field.

E7 Environmental Operations

OR



Promotes UN's Sustainable Development Goals

Environmental and Resource Policy

The Reykjavik Energy Group works according to an environmental and resource policy, which marks Reykjavik Energy's commitment to steadily improve its performance on environmental issues. The Policy is based on five principles which apply to all operating units: Responsible resource management, serviceability; providing access to the company's utilities, the impact of emissions from operations and the impact on the community and company activities. Key factors include the protection of potable water, sustainable utilisation of resources and compliance with the pillars of sustainable development. The goal is to achieve carbon neutrality and footprint-free production and operations by 2030. We place an emphasis on the responsible use of energy and supplies and handling of waste, in collaboration with suppliers and contractors. The policy forms the basis for effective collaboration with stakeholders.

The Group has defined environmental factors as significant with regard to the principles stated in the Environmental and Resource policy. Objectives have been established and defined for the handling of waste, high-temperature and low-temperature water resources, as well as energy consumption and minimising waste.

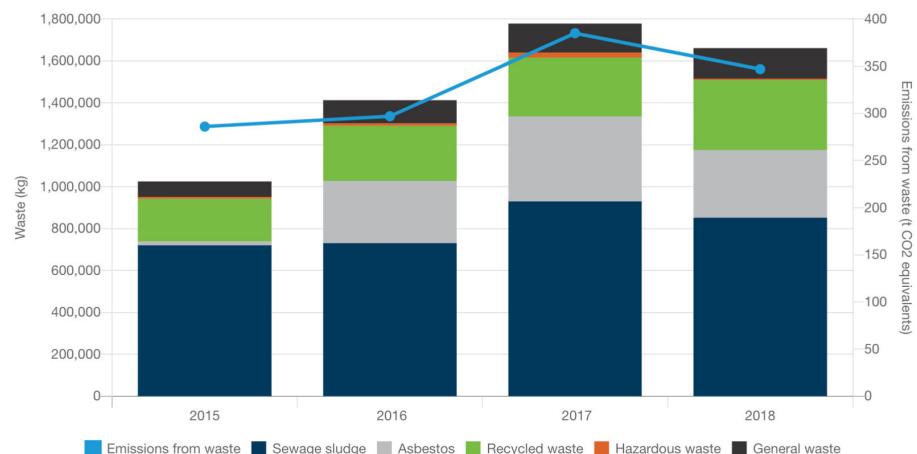
The operations of the Reykjavik Energy Group are not certified according to a formal energy management system.

Waste Management

Greenhouse gas emissions from waste for landfill were similar to figures from 2015. The percentage of waste from waste water treatment plants is the highest, i.e. about 50% of the total volume of landfilled waste. There is limited scope for controlling this type of waste as it is produced by the public and the business community in the utility area. Veitur Utilities launched an advertising campaign to highlight the damage caused by wet wipes and other rubbish in the sewage system.

The volume of other waste either increased or decreased. The appendices show how waste is divided between waste categories, work sites and municipalities.

Waste management at Reykjavik Energy Group 2015-2018



Environmental Incident at the Andakílsá Hydropower Station

In 2019, ON Power held a workshop with representatives from Skorradalshreppur, Borgarbyggð, land owners in the Skorradalur Lake and Andakílsá River areas, as well as representatives of summer house owners around the Skorradalur Lake. An action plan was subsequently drawn up, focusing on environmental issues around the Andakílsá Hydropower Station, and based on ideas that emerged from the workshop. The local community is involved in plan development.

The Andakílsá River Ecosystem

The Andakílsá River ecosystem has recovered after a substantial amount of silt was carried into the river during an inspection of the dam intake at the Andakílsá Hydropower Station in May 2017. According to the findings of the Marine Research Institute, there is still some progress to be made, particularly where the flow is at its weakest, but habitats recovered relatively quickly. Fishing pools were dredged in 2017 and this will be repeated in 2020.

About 30,000 juveniles were released into the river in 2019 and the same will be done in 2020. The Marine Research Institute released its plans for smolt farming plan and ongoing research into the river ecosystem in the autumn of 2019. ON Power held meetings with the Andakílsá Angling Association to discuss the smolt farming plan, arrangements for the 2020 summer fishing season, the emptying of the intake reservoir of the Andakílsá Hydropower Station in the autumn of 2020, and land erosion on the banks of the Andakílsá River.

Skorradalur Lake

The water levels of the Skorradalur Lake exceeded ON Power's limit in January 2019, due to a tremendous water swell, although water levels never exceeded the licensed limit which is 63.10 m.a.s.l. (see annex).

Drone monitoring began on bank erosion on the coastline of Fitja, Fitjahlíð and Grundarland in 2019. According to a report on the monitoring of wetland areas within the inner perimeters of the Skorradalur Lake, produced by the Icelandic Institute of Natural History in December 2019, there have not been any significant changes in vegetation close to the lake since measurements were last taken in 2011 (see annex).

The first version of the inflow model for the Skorradalur Lake is complete and the expected inflow into the lake can be seen three days in advance. Work has also begun on a wave model for the lake.



My carbon footprint

13.03 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Albert I. Ingimundarson

Chef, Reykjavík Energy

This surprises me! There is some air travel but consumption is high, compared to the average Joe. I could give more thought to what I spend and review my travelling habits, i.e. switch from a plug-in hybrid to an electric vehicle, but we already cycle to and from work quite a bit. We need to offset the impact of emissions.

This was something we didn't give any thought to until a few years ago. Humans can do better when it comes to taking care of Mother Nature. Improvements still need to be made!

Management of Low-Temperature Fields

OR



Promotes UN's Sustainable Development Goals

In 2019, production in the low-temperature fields of Veitur Utilities in the capital area and most distribution areas in South and West Iceland was in accordance with the company's definitions and objectives and statutory and regulatory provisions.

Capital area

In 2019, production in the low-temperature fields of Veitur Utilities in the capital area and most distribution areas in South and West Iceland was in accordance with the company's definitions and objectives and statutory and regulatory provisions.

Veitur Utilities operates thirteen district heating utilities. There are five in West Iceland, seven in South Iceland and one in the Capital area (see appendix). The district heating utilities provide services to 65% of the country. Low-temperature fields in the capital area are steadily utilised. The demand for hot water is increasing in the capital area and was close to reaching the tolerance limit for hot water reserves. This called for the expansion of the district heating utility in Hellisheiði, which is expected to reach completion in February 2020. Research began on the feasibility of producing hot water from low-temperature fields in Geldinganes (in Reykjavík) in 2019.

The supply of water, heated by geothermal water at the geothermal power plant, to Mosfellsbær, Árbær, Ártúnshöfði and Kjálarness in 2019 marked a historical moment in heating utility operations. Production was subsequently reduced in the low-temperature fields in Reykjavíl, Laugarnes and Elliðaárdalur, which increased winter reserves. The project will be used as a model for the future provision of hot water from geothermal power plants to the entire capital area. The ongoing utilisation of low-temperature fields could be secured in the capital area if geothermal production can be utilised in this manner and within sustainable limits (see annex). Heating utilities are also expected to improve utilisation methods and fully utilise energy streams in any future plans.

South and West Iceland

Conditions in most of the low-temperature fields in South and West Iceland are good, albeit with some exceptions.

More hot water needs to be produced for the Rangá Utility which services populated clusters in Hella and Hvolsvöllir. Water and steam production was better in 2019 than in 2018. The connection of a borehole in Ölfusdalur with utilities was completed in September 2019. Work is being done on installing a high temperature deep well pump in one borehole, which serves the utility, but this would be the first time in the world that a pump of this kind is used for geothermal energy.

Production and transport capacity was increased in the Thorlákshöfn utility in early December 2019, and then an upgraded pumping station was used and a pump was placed in a hole which was previously a gravity feed.



My carbon footprint

9.27

tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Gísli Sveinsson

Deputy director, ON Power

Consumption is a big part of my carbon footprint and that surprises me. This is offset by the fact that I travel to work either on my bike or in a hybrid car. It will take some effort to decrease my consumption, but these figures will be a challenge for me to change my habits and reduce my carbon footprint. Everyone has to do their bit.

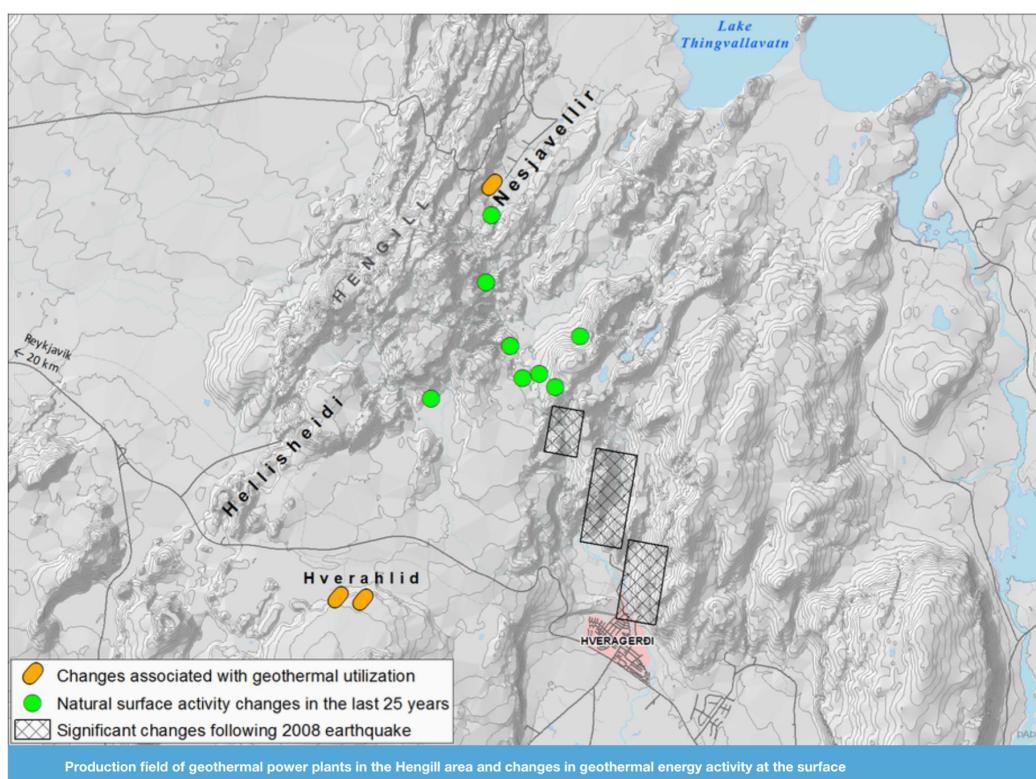
Management of High-Temperature Fields

OR



Promotes UN's Sustainable Development Goals

Geothermal energy activity is monitored at the surface in the Hengill area, which can be impacted by natural changes and because of geothermal energy production. There is no definite way of discerning whether the changes occur naturally or are caused by man. Changes in Hverahlíð started when wells were drilled in the area.



In 2019, energy production at Nesjavellir and Hellisheiði were in accordance with the power plant's operating licence and ON Power's objectives. Maintaining the production capacity of power plants in the Hengill area has been one of the company's most important tasks in recent years.

Three production wells were drilled at the Hellisheiði Geothermal Power Plant in 2019. Drilling also began on one reinjection well at the plant which will be completed in 2020. One production well was drilled at Nesjavellir in 2019.

Two wells were drilled in Hverahlíð in 2019 and connected to the Hellisheiði Geothermal Power Plant. One well was drilled in Nesjavellir in 2019. The steam reserve status of ON Power's plants is good.

The production capacity of the wells in Hverahlíð now exceeds the transport capacity of the Hverahlíð utility. Power generation options for the Hellisheiði Geothermal Power Plant were mapped out in 2019 and the conclusion is that the most viable way to maintain the production capacity of the plant is to increase the transport capacity of the Hverahlíð pipeline. A double Hverahlíð pipeline is now considered a satisfactory solution on the basis of the status of the resources because the drawdown has decreased in Hverahlíð. The chances of achieving good results at the wells in Hverahlíð are considerably better than in the traditional production field at the Hellisheiði Geothermal Power Plant. ON Power carefully monitored the utilisation drawdown in Hverahlíð and in the older production field of the Hellisheiði Geothermal Power Plant and also in Nesjavellir.

The current production area in the Hengill area may need to be expanded, if full capacity is to be maintained at the Hellisheiði and Nesjavellir geothermal power plants in the long term. Some preliminary research will need to be completed on the potential of future production, to facilitate informed decisions on the future of power generation and to guarantee the sustainable utilisation of geothermal resources.

| Discharge of Geothermal Water and Induced Seismicity

Discharge of geothermal fluids

Geothermal fluid is reinjected back into the geothermal system at the Hellisheiði and Nesjavellir geothermal power plants, to protect surface and groundwater. The fluid is hotter than groundwater and has a different chemical composition. This also bolsters the pressure in the geothermal reservoir, which boosts sustainable utilisation.

Various research and development projects have been conducted in recent years to fulfil reinjection requirements at Hellisheiði and Nesjavellir, with considerable success.

In 2019, 60% of the geothermal fluids extracted from the geothermal reservoir in Hellisheiði (separated water and condensate water) were reinjected, 96% of which was separated water. The condensate water (dense pure steam) not used for reinjection (38% of the geothermal fluids) evaporated in the cooling towers or was released in shallow reinjection wells. Some 2% of the geothermal fluids went into the overflow of the reinjection utility, due to incidents in operations.

Over 90% of the geothermal fluid extracted from the geothermal reservoir at Nesjavellir in 2019 was reinjected back into the system. The development of the reinjection utility at the plant in recent years has resulted in the discharge of geothermal fluids being at an all-time low over the past two years.

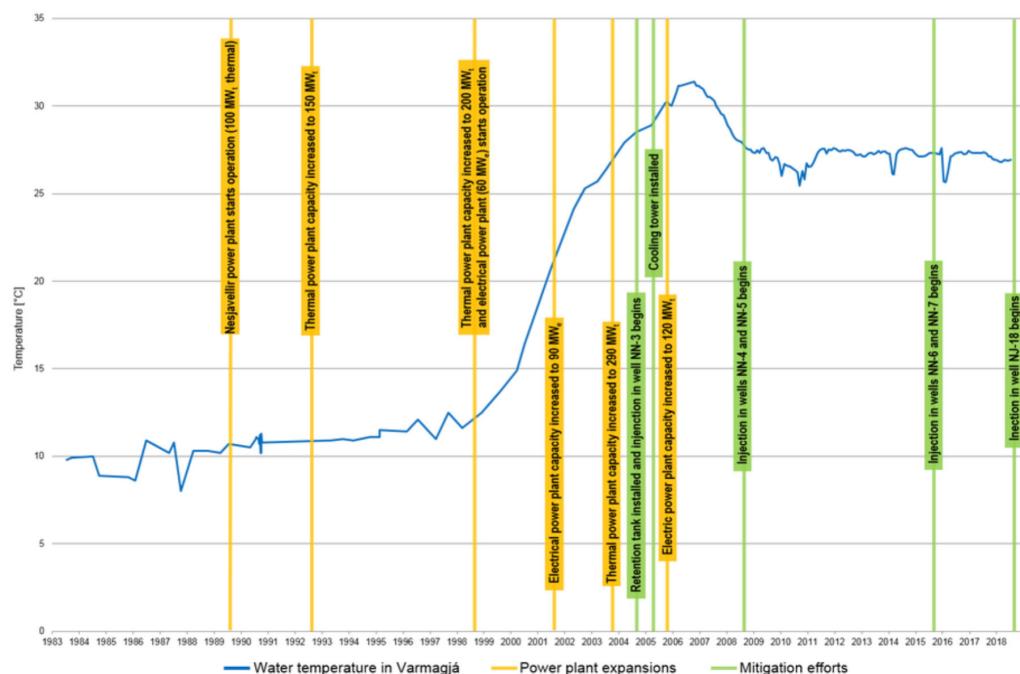
Geothermal energy production is accompanied by the substantial discharge of heated groundwater at the surface. Groundwater has been extensively monitored in the past by recording well and hot spring temperatures in real-time. Samples have also been collected since the power plant began operations in 1990. The results do not show a decrease in groundwater temperatures, despite less discharge (see graph). This could be attributed to the following:

- The reinjection of geothermal fluids does not result in a cooling of groundwater because the reinjected fluid mixes with the groundwater, following flow paths underground in the rock itself.
- Improvements made to the release routes have not yet resulted in a cooling of the groundwater at Þingvallavatn Lake.

Heated groundwater from geothermal power plants was used for the first time in hot water utilities in Mosfellsbær, Árbær, Ártúnshöfði and Kjálfarnes in the summer of 2019. There are plans to further utilise heated groundwater from power plants for hot water utilities in the capital area.

Monitoring on the ecosystem in Þorsteinsvík, by the Þingvallavatn Lake, began before the Nesjavellir Geothermal Power Plant was built. The results, released by the Natural History Museum of Kópavogur, show that these trace elements do not have a statistically significant impact on the ecosystem (see appendix).

The analysis of the status of groundwater at Nesjavellir will continue so that ON Power can achieve its objective of reducing the environmental impact of the Nesjavellir Geothermal Power Plant.



Water temperature at Varmagjá at Þingvallavatn Lake, the development of the Nesjavellir Geothermal Power Plant and mitigation measures

Induced Seismic Activity

In 2019, the Reykjavík Energy Group achieved its objective of ensuring that seismic activity, potentially associated with the reinjection of geothermal fluid, would not cause inconvenience or damage.

The reinjection of geothermal fluids, blasting associated with geological research and drilling in high-temperature areas can cause seismic activity, or so-called 'induced seismic activity' i.e. triggered earthquakes. ON Power follows procedures that are designed to minimise the risk of triggered earthquakes, in and around the Hengill area.

Seismic activity is associated with the reinjection of geothermal fluids, particularly in the Húsmúli area by the Hellisheiði Geothermal Power Plant (see appendix). The earthquakes occur when reinjection releases tension that has built up in the bedrock, due to movements in the earth's crust. In 2019, two notifications were sent to the Icelandic Meteorological Office and the Department of Civil Protection Unit of the Icelandic Police Department due to changes in reinjection. The earthquakes were not felt in populated areas.

Data on the bedrock in geothermal systems is important for drilling and the production of geothermal energy. In the summer of 2019, ten small explosions were set off in wells in Hverahlíð to trigger small earthquakes which rebounded in the bedrock and provided data on the nature of the rock to a depth of as much as 5 km. The energy in the explosions was similar to an earthquake of 1.5 on the Richter scale. One notification was sent to the seismic activity division of the Icelandic Meteorological Office and the Department of Civil Protection Unit of the Icelandic Police Department as a result of this. The earthquakes were not felt in Hverahlíð or in populated areas.

Reykjavík Energy participates in three European Union projects, aimed at boosting knowledge on the interplay between the utilisation of geothermal energy and seismic activity. The projects involve more seismic activity measurements in the area, greater monitoring and more detailed seismic activity research.

Geothermal Park in Hellisheiði

OR



13



13

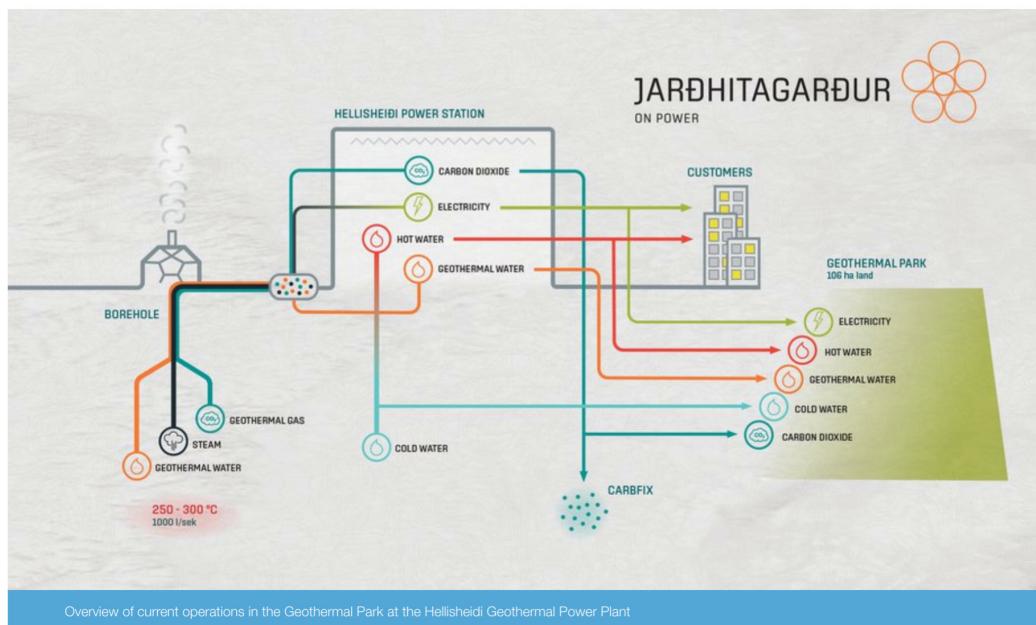


13



Promotes UN's Sustainable Development Goals

The Geothermal Park at the Hellisheiði Power Plant is used to discover new and diverse ways to utilise thermal energy, electricity, water and geothermal gases from the plant. The use of various energy streams from geothermal utilisation can increase efficiency and strengthen environmentally friendly operations and innovation in the business community. Energy-related natural resource streams are utilised in the operation of the Geothermal Park.



An example of the efficient use of natural resources is the cultivation of microalgae, using various energy-related sources, by the international start-up company Algaenovation, which opened a microalgae facility in ON Power's Geothermal Park in September 2019. Feed is produced for juveniles using microalgae, which is a source of multiple nutritive elements such as Omega-3 fatty acids. The goal is to produce it for human consumption in the future. Separated water from the Hellisheiði Geothermal Power Plant is used for the production of dietary supplements by the GeoSilica company. A considerable amount of carbon dioxide goes into electricity production in Hellisheiði. Numerous start-up businesses have shown an interest in using carbon dioxide and other sources from the plant.

ON Power produces hydrogen at the Hellisheiði Geothermal Power Plant on an experimental basis. The installation of an electrolyzer for the production of hydrogen is part of the Hydrogen Mobility Europe project which ON Power participates in. The aim is to develop new power streams and to produce fuel such as hydrogen sulphide for public and corporate use as part of the green transformation of transport.

Strict requirements are imposed on companies that intend to operate in the ON Power Geothermal Park. Companies are required to re-use any vegetation disturbed during the construction phase of their projects. They must either replant vegetation or utilise it elsewhere.



My carbon footprint

7.39 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Ragnheiður Hrefna Magnúsdóttir

Head of production, Veitur Utilities

I seem to have a carbon footprint that is below average. This is probably because I drive an electric vehicle, but I see countless opportunities to lower my carbon footprint. What surprises me the most is how much consumption has to say. I need to review my consumption habits and try to reduce my trips abroad or at least offset the carbon emissions. It would be great if Iceland were to take a serious step by banning plastic packaging. It's really crazy to think how much packaging we throw away every week.

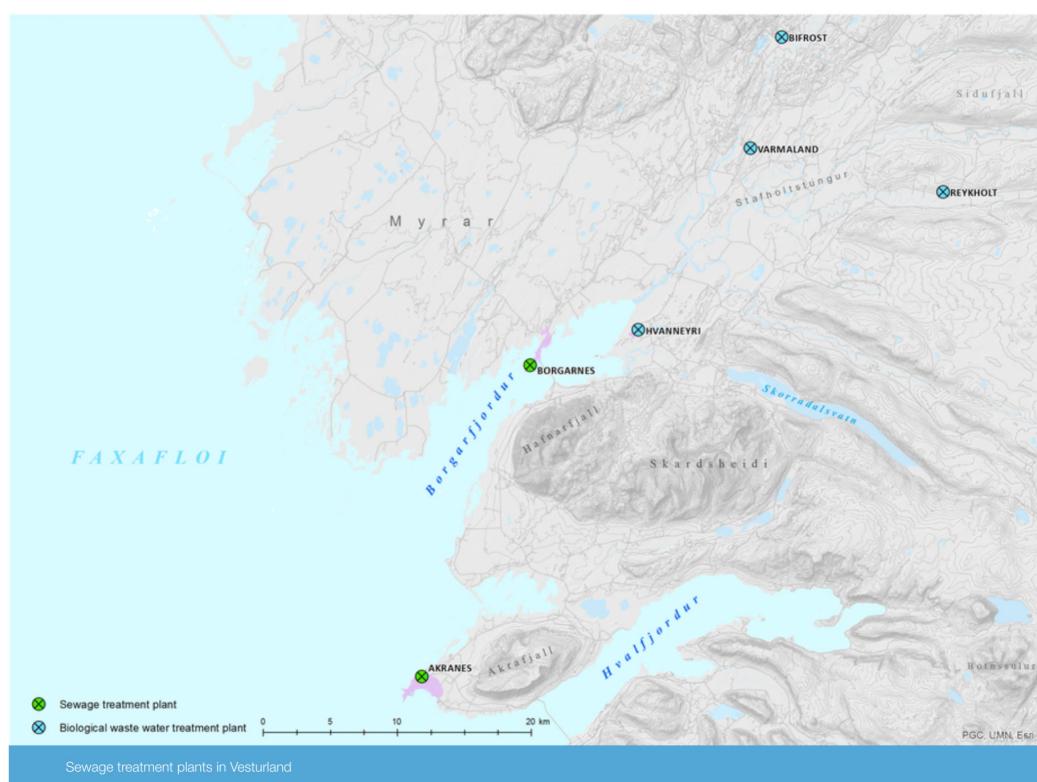
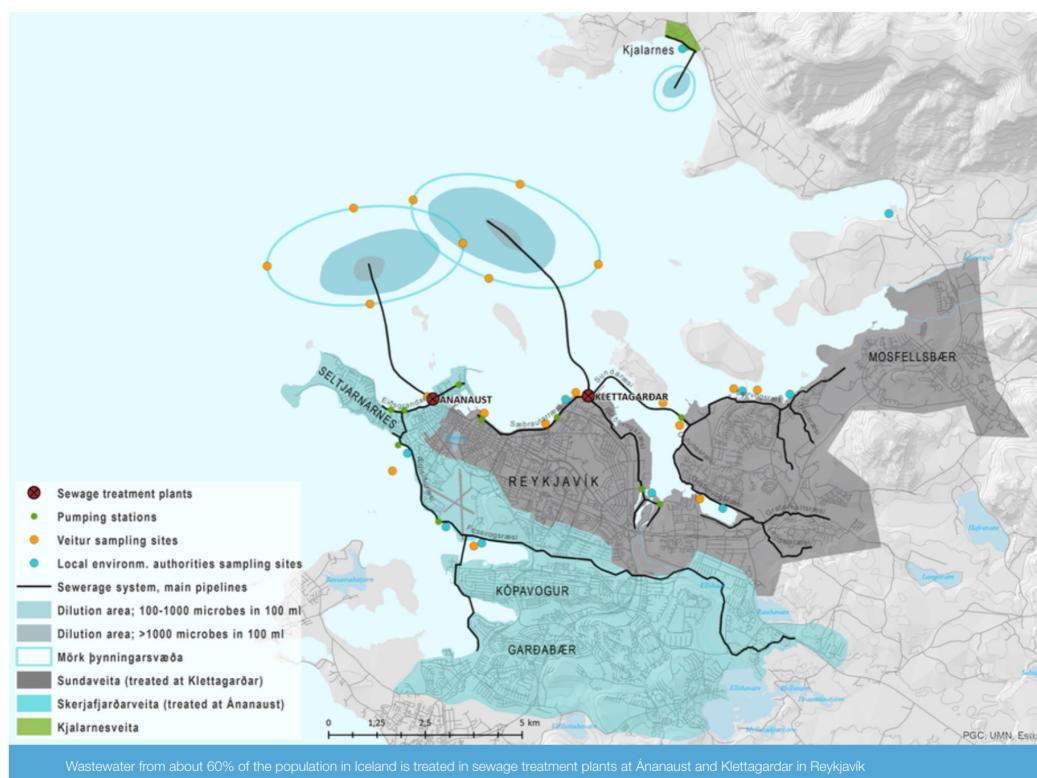
Wastewater System Discharge

OR



Promotes UN's Sustainable Development Goals

Veitur Utilities manages the development and operation of waste water systems in Reykjavík, Akranes and Borgarbyggd in West Iceland. Drainage from Kópavogur, Mosfellsbaer and Seltjarnarnes, in addition to parts of Gardabaer, is handled in waste water treatment plants at Ánanaust and Klettagardar, i.e. from about 60% of the population.



Local residents and the business community have access to utility systems and sewage treatment plants in accordance with the law and regulations.

Veitur Utilities' long term objective is to ensure the city's coastline is always clean. According to Reykjavík's 2010-2030 Municipal Plan, the shore is defined as an outdoor recreational area. However, the discharge of unfiltered sewage via overflows is an inseparable part of the sewage system which has been built up over decades. This will continue to be the case in the immediate future, despite Veitur Utilities' best efforts. The annex provides data on the discharge of unfiltered sewage via all the main overflows and emergency outlets of Veitur Utilities' sewerage systems.

Examples of measures taken to reduce the discharge of unfiltered sewage via overflows are the development of procedures to systematically search for leaks and the revision of the design of new pumping stations. Water that leaks into the sewerage system takes up space and increases the probability that the flow along the pipes [BF1] and pumping stations will exceed maximum capacity with a consequent discharge via overflows. An altered design of the sewage pumping stations could substantially increase their up-time and increase the possibility of conducting maintenance work without halting operations. These measures would also help to improve the working environment and safety of employees. Long-term plans are underway to separate unwanted water from the sewage system. The mixture of sewage and surface water now accounts for 28% of the sewage collection system. The flow of surface water is determined by the weather, causing fluctuations in flow making it almost impossible to avoid overflow discharges from the mixed sewage system in a cost-effective manner.

The results of measurements on waste water pollution on the periphery of the dilution area in Faxaflói in 2019 showed that the number of microbes was below the threshold for enterococci and faecal coliform in all of the 32 measurements taken in 2019. In the vicinity of the overflow channels of Veitur Utilities in Reykjavík and elsewhere along the city's shore, 90 samples out of 100 were below the limit for enterococci, which means very little or no faecal contamination, according to Regulation 796/1999 on the prevention of water pollution. Some 99 samples were below the limit for faecal coliform (see annex).

The concentration of micro-organisms in the vicinity of outlets from Veitur Utilities' biological sewage treatment plants in West Iceland exceeded the limits prescribed in the operating licence over the past few years. See annual overview reports of sampling and measurements, which are accessible on Veitur Utilities' website.

The waste water discharge report of the treatment plants can be found in the appendices.

Blue-green surface water solutions

Veitur Utilities is working on the implementation of blue-green surface water solutions in cooperation with various municipalities to slow down the flow of rainwater on streets, roads and other areas above the sewage system. Residents and businesses can also make their contribution by curbing the flow from their premises with blue-green surface water solutions, thus reducing the flow and likelihood of discharge of overflow into the sewage system. Veitur Utilities has conducted assessments of the impact of overflow solutions on the capacity of new surface water pipelines in Laugardalur in Reykjavík.

Microplastics in drainage

Research conducted on the presence of microplastics in drainage at the treatment plant in Klettagardar has revealed that some quantity was found. This is a manifestation of a widespread problem, but most of the indications are that large quantities of microplastics are carried out into the environment with little hindrance in Iceland[BF2] , see report on microplastics in the ocean by Iceland in annex. Most indicators suggest that surface water carries a substantially greater volume of microplastics into the sea than sewage. The microplastics problem is a focal point in the development of Veitur Utilities' future vision for the filtering of sewage and surface water.

Restoration of Disturbed areas

OR



Promotes UN's Sustainable Development Goals

The Reykjavik Energy Group is responsible for about 19,000 hectares of land, some 16,000 hectares of which are within protected areas (see annex). The annex also contains a list of the species of birds and plants on the 'Red List' whose local habitat is located in these areas. An emphasis is placed on the restoration and reclamation of the natural environment and reducing the visual impact of Reykjavik Energy's power plant areas and the operating areas of Veitur Utilities, the Reykjavik Fiber Network and Reykjavik Energy. This is done in collaboration with the licensing authorities and in accordance with the objectives of the Reykjavik Energy Group.

Birch trees were planted on 2.6 hectares of land by the Nesjavellir Geothermal Power Plant. About 3.1 hectares were cultivated with local vegetation in 2019, 1.8 hectares of which were planted due to construction work and 1.3 hectares was planted as part of further land improvements (see annex). ON Power plans to expand the land reclamation area by 4 hectares per year in eroded zones outside the company's operating areas and to allocate 4 hectares of land per year to silviculture.

Reykjavik Energy is responsible for about 130 km of marked walking paths in the Hengill area which have significantly deteriorated as a result of increased hiking traffic. Sensitive areas were closed off and walking paths were moved in the summer of 2019.



Hiking trails in the vicinity of the Hellsheidi Geothermal Power Plant-Photo: Belinda Eir Engilbertsdóttir -

Use of Hazardous Substances

OR



Promotes UN's Sustainable Development Goals

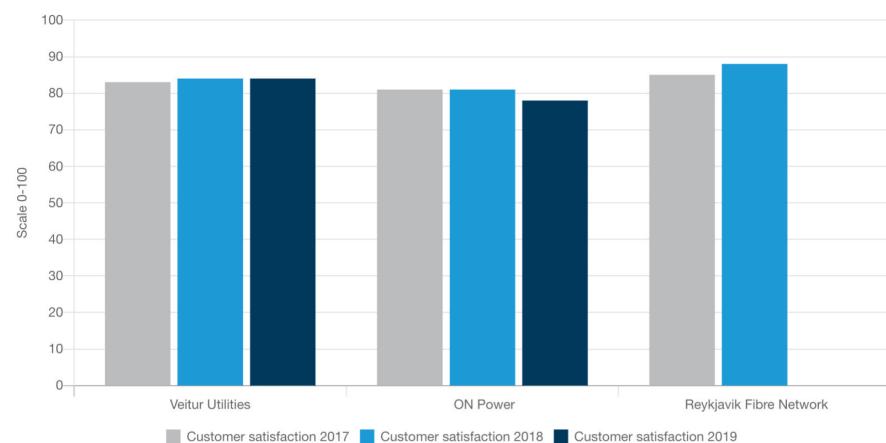
The main hazardous substances used by the Reykjavik Energy Group are asbestos, the base material used in insulation foam, chlorine, acids and bases, welding gases, geothermal gases, oil and solvents. In 2019, hazardous substances were used as much as in previous years. The improvements that have been undertaken regarding the storage, sorting and disposal of hazardous substances have increased employee awareness of the importance of these issues and has minimised the use and discharge of hazardous materials. In 2019, workshops on hazardous substances were held for employees who work with these substances. An emphasis was also placed on marking hazardous substances and putting up posters with instructions.



Reykjavik Energy, Veitur Utilities, ON Power and the Reykjavik Fibre Network are responsible for ensuring public access to the water supply, sewerage system, electricity supply, district heating and the fibre network. The reliability of these basic services and customer satisfaction are among our main corporate social responsibility priorities.

Reykjavik Energy wants to create a workplace that inspires and thrives. A happy, skilled, engaged and productive team is the only way to achieve this goal. The Reykjavik Energy group is large, by Icelandic standards, and our working practices can have a widespread impact on the community. Integrity is important to us, and striving for excellence and continuous improvement reflects our unwavering commitment to corporate social responsibility.

Customer satisfaction 2017-2019

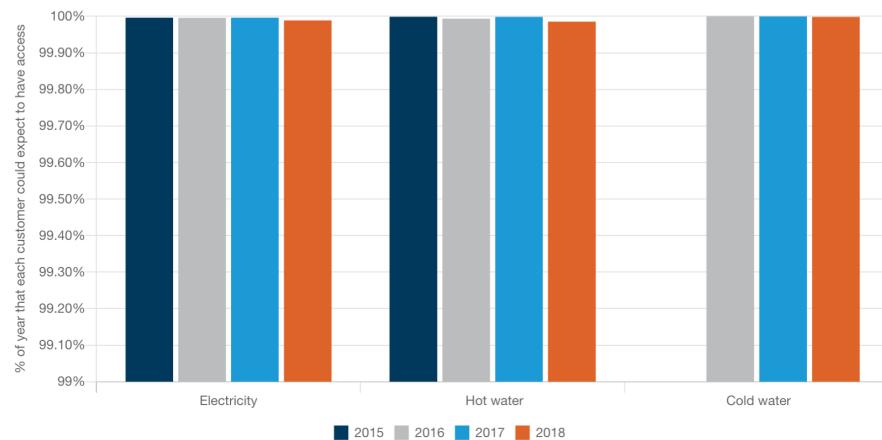


Companies inside the Group closely monitor customer satisfaction by conducting regular customer satisfaction surveys. The results of these form the index, shown here, for each of the three subsidiaries. Reykjavik Fibre Network modified their survey in 2019. Nearly 100 customers are now contacted every week and asked if they are satisfied with the quality of service. A total of 4,804 calls were made in 2019. The results showed that 96.6% of the customers were satisfied, 2.6% were neutral and 0.8% were dissatisfied.

The company was awarded first place by the Icelandic Customer Satisfaction in 2019, despite a slight decrease in customer satisfaction when compared with previous figures. The Index provides organisations with coordinated measurements of customer satisfaction.

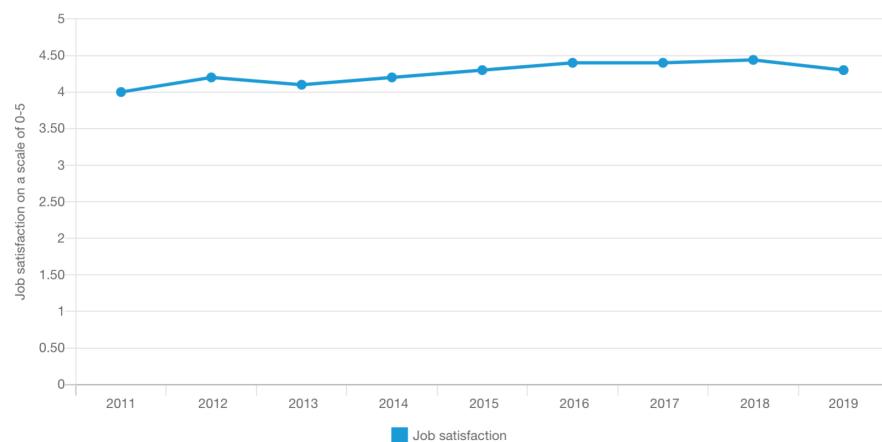


Reliability of the utilities



We have used a tried and tested method for measuring the continuity of supply for many years. The total disruption time for each customer is divided between all the customers in each utility area. Veitur Utilities adopted this method for the heating utility in 2015 and the water utility in 2016.

Job satisfaction



Reykjavík Energy and its subsidiaries have undergone considerable changes in recent years which have resulted in significant improvements in job satisfaction. We measure job satisfaction by conducting regular surveys. We detected a slight dip in 2019, but a satisfied workforce is still counted as one of our strengths.

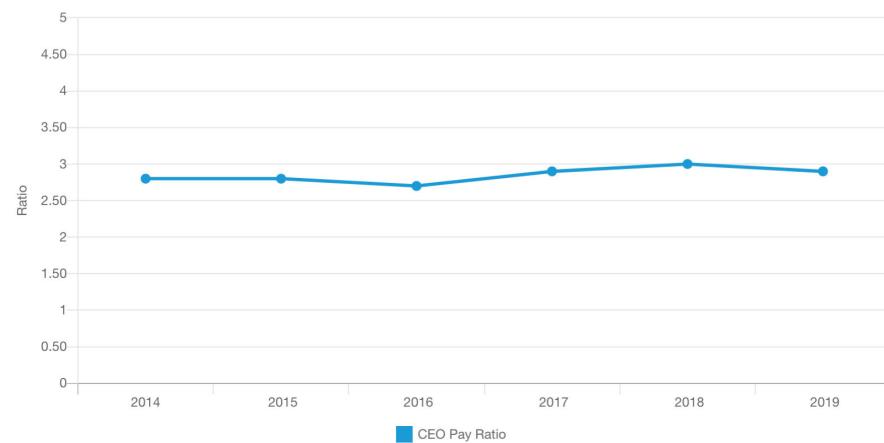
| S1 CEO Pay Ratio

The Board of Directors of Reykjavik Energy appoints the CEO and his duties, responsibilities and terms of employment are decided by the Board. The Board of Directors takes into the account the provisions of the ownership policy of Reykjavik Energy, which stipulates that the CEO's salary should be comparable to the wage for comparable jobs, but also take into account the fact that the company is a public entity. The Compensation Committee reviews the CEO salaries on an annual basis.

Compensation to BoDs and CEOs within the OR Group are published in the notes of OR's Consolidated Financial Statements. The CEO pay-ratio is measured as CEO's total salaries divided by the median salaries of permanent staff within the group.

Early in 2019, Reykjavík Energy's CEO left the post of chairman for two of the company's subsidiaries, thus lowering the rate year-on-year.

CEO Pay Ratio



My carbon footprint

10.58

tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Víðir Ragnarsson

Business intelligence specialist, Reykjavík Energy

It didn't surprise me that the carbon footprint is below average when it comes to travel and food. I prefer using an eco-friendly car or bus and my family's eating habits have shifted towards less meat consumption. Nevertheless, I have to work on my consumption, since it is higher than the average Icelander's. The most important factor there I think is to be organised in what I buy.

S2 Gender Pay Ratio

OR

5
GENDER
PAY

8
DIVERSITY
INDEX

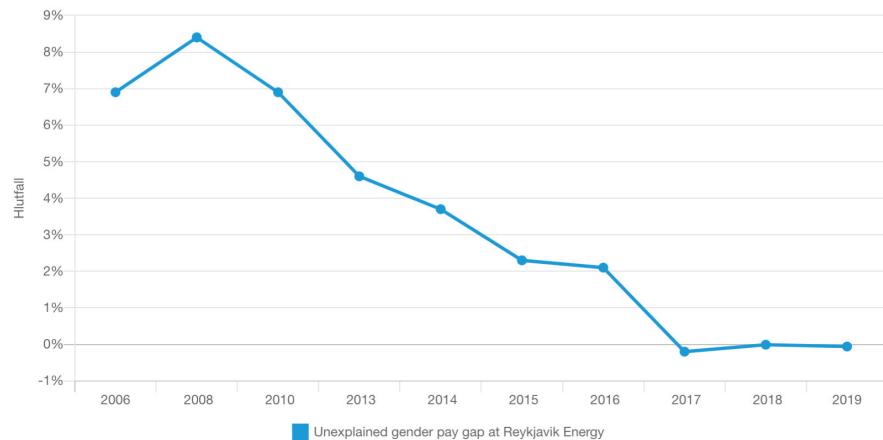
10
SUSTAINABLE
DEVELOPMENT
GOALS

Promotes UN's Sustainable
Development Goals

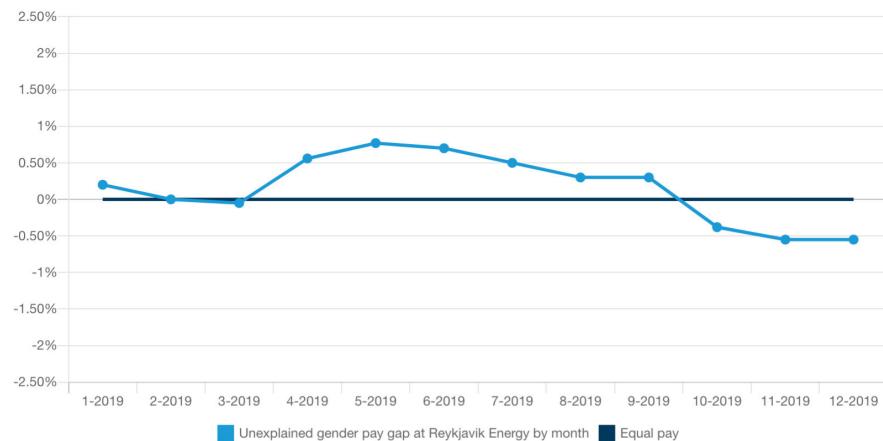
Reykjavik Energy places a great emphasis on gender equality. We received an Equal Rights Award from the Equal Rights Council in 2014 and a Motivation Award from the Confederation of Icelandic Employers in 2015. Reykjavik Energy is a member of the United Nations Convention on Gender Equality. In 2017, Reykjavik Energy adopted a new model which analyses the impact of every single wage decision on gender wage differences. This enabled the Group to eliminate unexplained gender pay gaps by 2017.

Reykjavik Energy's equal wage system received wage equality certification in 2018 which confirms that the model/system used by the company fulfils the provisions of Act No. 56/2017 on gender wage equality. The system is used to ensure that there are no gender-based wage discrepancies.

Unexplained gender pay gap at Reykjavik Energy 2006-2019



Unexplained gender pay gap at Reykjavik Energy by month 2019



In the graph above: Numbers higher than 0 represent wage differences in favour of men and numbers lower than 0 wage differences in favour of women. Reykjavik Energy started to conduct monthly measurements of unexplained gender wage gaps in the company in 2017.

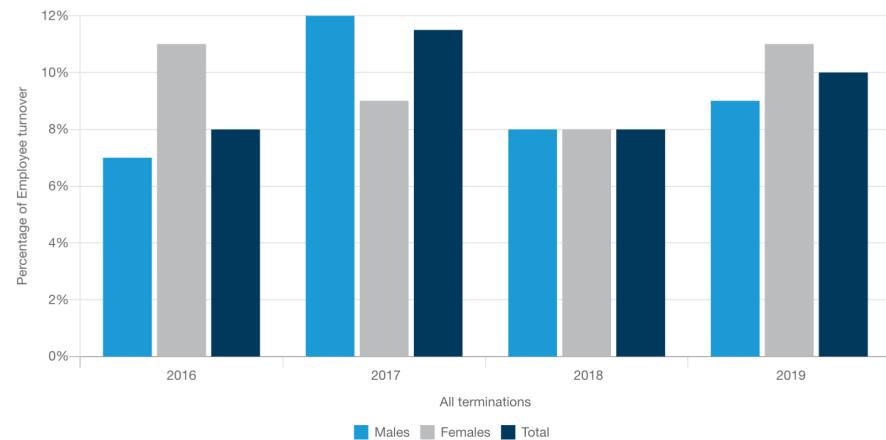


EQUAL PAY
CERTIFICATE
2018 - 2021

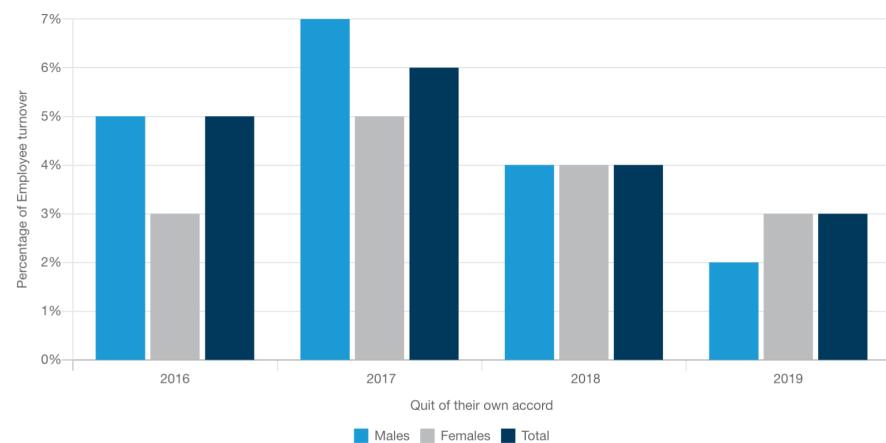
| S3 Employee Turnover

Reykjavik Energy monitors staff turnover in the Group according to factors such as age and gender. There is a correlation between the economic situation and staff turnover. Fewer employees left their positions in 2019. Several older employees left the company in 2019 which mostly explains an increase in employee-turnover in 2019. A small share of employees are in part-time jobs. The turnover ratio of that group is therefore calculated separately.

Employee turnover



Employee turnover, quit of their own accord



Employee turnover - by age group	All terminations	Quit of their own accord
20-29	6,3%	3,2%
30-39	8,1%	3,7%
40-49	6,1%	3,0%
50-59	10,9%	1,0%
60-69	15,7%	1,0%

S4 Gender Diversity

OR

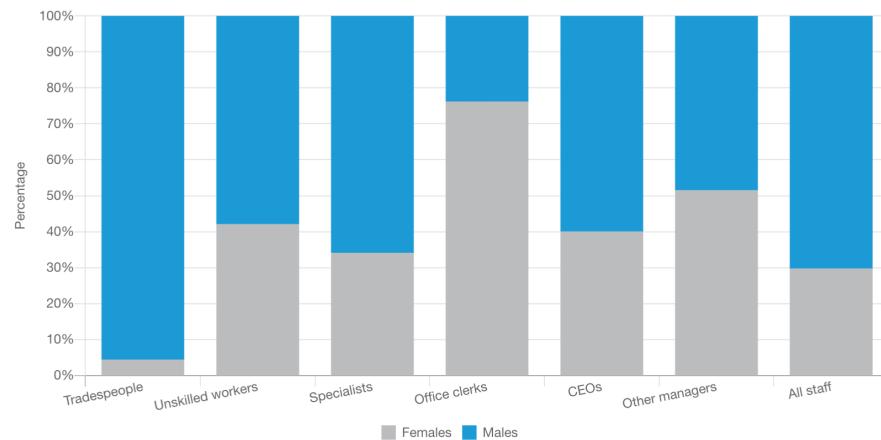


Promotes UN's Sustainable Development Goals

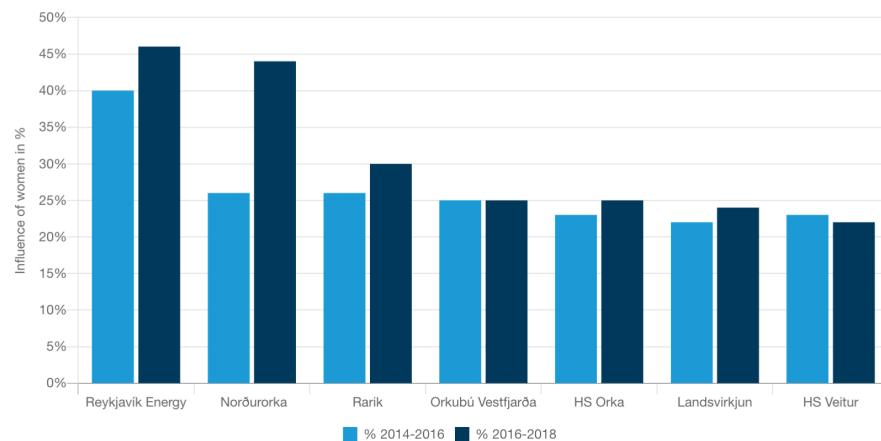
Reykjavik Energy has traditionally been a male dominated workplace. Efforts are being made to increase the number of female technicians and specialists.

According to a study conducted by Ernst & Young for the association Women in Energy, published in May 2019, the influence of women in the energy sector is greatest within the Reykjavik Energy Group.

Gender diversity per job category



Influence of women with Icelandic energy and utility companies



S5 Temporary Worker Ratio

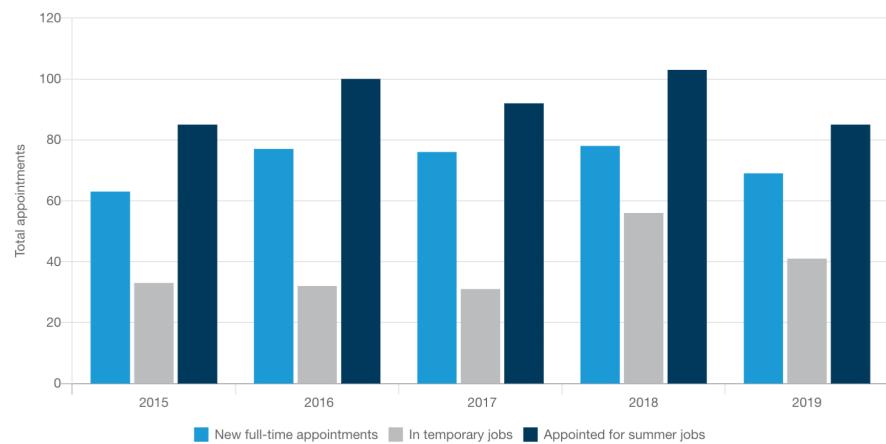
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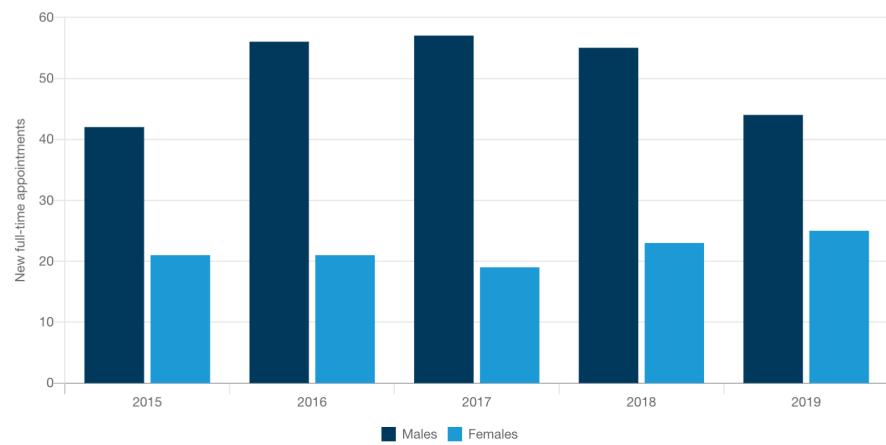
Promotes UN's Sustainable Development Goals

There is a long-established tradition among utility companies to hire young adults for summer jobs and they make up the majority of temporary appointments. In 2018 there was a significant increase in the appointment of staff to other part-time jobs. Reykjavik Energy and its subsidiaries buy a lot of labour from big companies such as engineering companies and building contractors. Some of the staff of large and small contractors work substantially for Reykjavik Energy or a subsidiary. That group has not been analysed and Reykjavik Energy does not possess any numerical data on the composition of that group.

Temporary appointments



New full-time appointments-by gender





My carbon footprint

10.13 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Fríða Rakel Linnet

Specialist in electricity utility investment projects, Veitur Utilities

I knew I had to make improvements and these results will help me to roll up my sleeves. I try to buy less and choose eco-friendly options but there is still room for improvement. I am not surprised that my eating habits are more eco-friendly than the average person, since I have familiarised myself with the vegan diet very

thoroughly. We drive quite a lot and only have a gasoline-fuelled car, but not taking any trips abroad last year obviously helped. I think my next big personal step will be to switch over to an electric vehicle.

S6 Non-Discrimination

OR

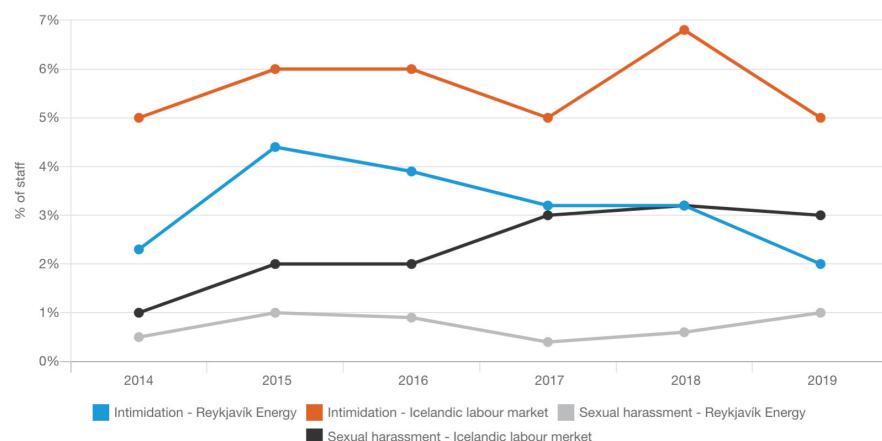


Promotes UN's Sustainable Development Goals

Our Non-Discrimination Policy represents our commitment to improving in equal rights issues. Our Policy is based on the definition of human rights found in the Icelandic Constitution. Each subsidiary of the Group has an active equal rights committee. Each committee operates according to an implementation plan and the highest ranking executive in each subsidiary is responsible for ensuring compliance with the Policy, which is approved by the Board of Directors.

We continued our support for the industry and technology project at the Árbær elementary school in 2019. We held various consultation meetings and all our employees participated in workshops to prepare a formal communication compact for Reykjavík Energy.

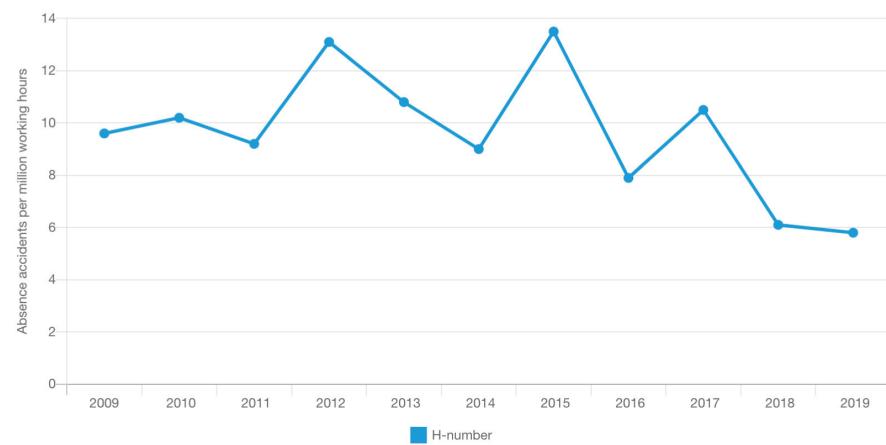
Percentage of staff who say they have been subject to intimidation or sexual harassment



| S7 Injury Rate

The H-figure is an international measurement unit for the rate of occupational injuries. It is calculated as the number of injuries per each million working hours. The term injury is used if the person is absent from work for at least one day. There were six injuries at the Reykjavik Energy Group in 2019 and working hours were 1,057,601.

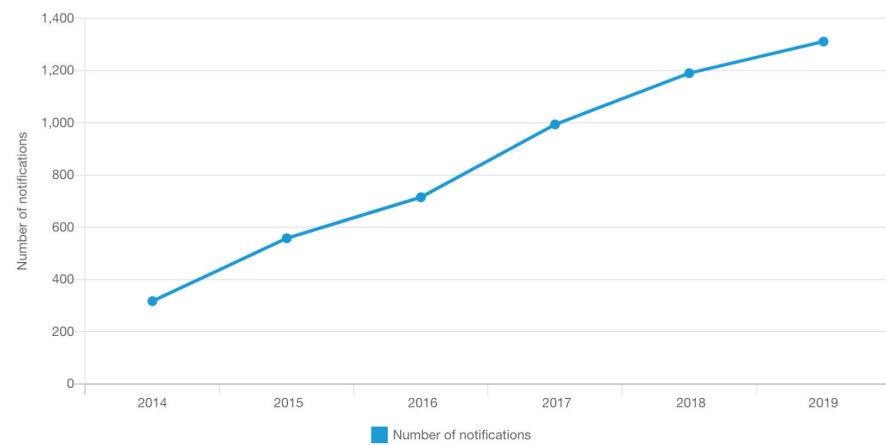
Absence accidents per million working hours



Reykjavik Energy's Safety and Health Policy is regularly reviewed by the Board of Directors within the group. The goal is to achieve an accident-free workplace. That goal was not met in 2019. Reykjavik Energy sets clear safety requirements in all its tenders to ensure that contractors comply with safety regulations. Reykjavik Energy has also issued a Safety Handbook which is available to all employees and contractors. All contractor employees are required to take certified safety courses.

Reykjavik Energy operates a notification database where staff can register hazards. These registered hazards provide the basis for the review of health and safety issues and have increased from year to year. Each notification is reviewed and its resolution has to be confirmed. The increased number of notifications is a sign of increased awareness of safety issues and improved safety-culture within the group.

Notifications in the safety and health database





My carbon footprint

8.91 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Lea Steinþórsdóttir

IP network specialist, Reykjavik Fibre Network

My family and I are not big spenders, apart from the mortgage, and I'm surprised to see what a big carbon footprint we have. I realise that my driving pollutes a lot, but in Iceland public transport is not a very viable option. I think the authorities could examine all the pollution caused by the cruise ships entering Iceland. I once heard that a single ship pollutes as much as the country's entire

car fleet.

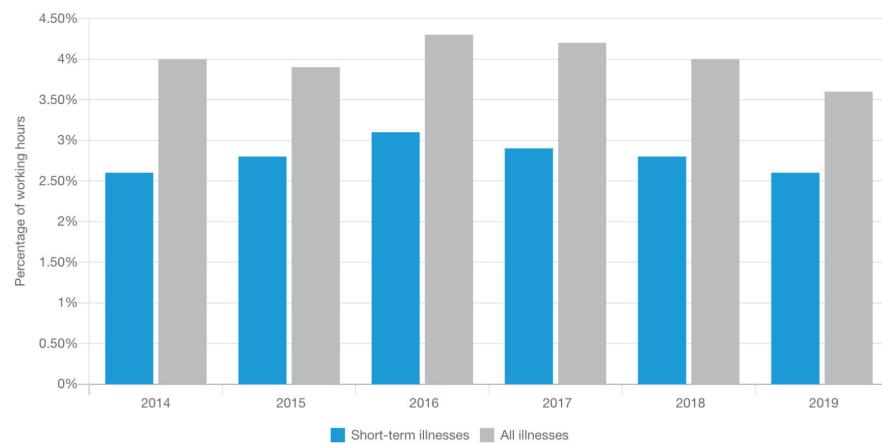
S8 Global Health & Safety

OR



Promotes UN's Sustainable Development Goals

Staff illness



Reykjavik Energy has a Health and Safety Policy, which is regularly examined and reviewed by its Board of Directors. One of the Group's targets for 2019 was to reduce staff absences, due to accidents or illnesses, to 3.6% of total hours worked by 2023.

Staff absences decreased from 4.1% to 3.6% in 2019 which is a good result. This can be attributed to fewer absence-related accidents and a less severe wave of influenza than in previous years. We want to maintain this success and explore ways to do even better. We encourage employees to exercise during work hours and look after their health. Employees can exercise for two hours a week on a full wage. We offer scheduled crossfit, yoga and dance fitness sessions the gym at our headquarters. We give regular talks on health-related issues, conduct health surveys and offer influenza vaccinations. We encourage participation in health-related sporting events such as the Life Run and Bicycle at Work.

S9 Child & Forced Labor

OR



Promotes UN's Sustainable Development Goals

Reykjavik Energy endeavours to operate in accordance with Icelandic labour law and the Group's policy in Environment, Health and Safety (EHS) issues. We are not only responsible for protecting the rights of our own employees; we are also responsible for contractor and sub-contractor employees. We impose stricter regulations than those required to ensure compliance with the law:

- We can terminate contracts with contractors who wilfully break Icelandic labour market rules
- Contractors and sub-contractors must abide by the 7 working hours per day regulation, unless licensed to do otherwise, by Reykjavik Energy (we have never issued this type of licence)
- All wage and insurance payments must comply with Icelandic law

No violations occurred in 2019.

S10 Human Rights

OR



Promotes UN's Sustainable Development Goals

Reykjavik Energy's Non-Discrimination Policy is based on human rights definitions from the Icelandic constitution. The company's Code of Conduct also contains a special chapter dedicated to human rights and non-discrimination. We held workshops in 2018 to discuss the #metoo movement and its significance for Reykjavik Energy Group's workplace culture. All employees were expected to attend. Employees also attended workshops held in 2019 to focus on the development of a formal communication compact for the OR-Group, which will be published in 2020.

Reykjavik Energy's stipulates its human rights policy in all tendering and contract documents.

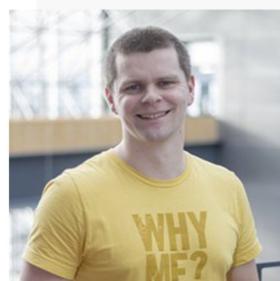


My carbon footprint

11.28

tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Jón Sævarsson

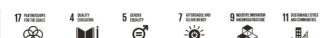
Analysis specialist, Reykjavik Energy

I have a similar carbon footprint to the average Icelander, which comes as no big surprise to me. We consider ourselves aware, but we sometimes lose track of our carbon footprint. I still need to do more to help keep global warming within 1.5 °C. I need to radically change my diet and particularly reduce meat consumption, electrify the family car and preferably shift towards a car-free life

style.

Dissemination of Knowledge

OR



Promotes UN's Sustainable Development Goals

Our commitment to continuous improvement creates expertise and knowledge which can be of use to others. This can be attributed to:

- the Group's leading position in geothermal utilisation
- the fact that Veitur Utilities is the largest company of its kind in the country and
- the Reykjavik Fiber Network has the most extensive fibre network in Iceland.

Reykjavik Energy believes that knowledge dissemination that can benefit others is one of the Group's key responsibilities.

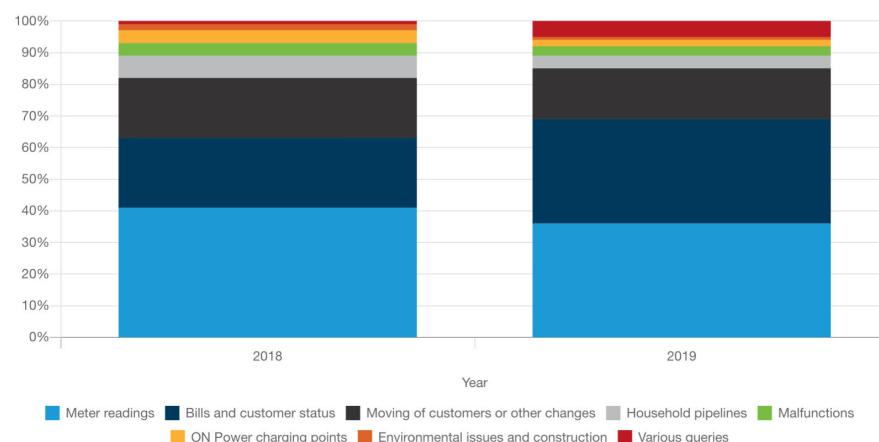
Every year the Reykjavik Energy Group hosts a Science Day where various development projects are presented. Several employees of the Group regularly teach at the university and the School for Renewable Energy Science (RES) in Iceland and deliver lectures at specialised conferences, both domestically and abroad.

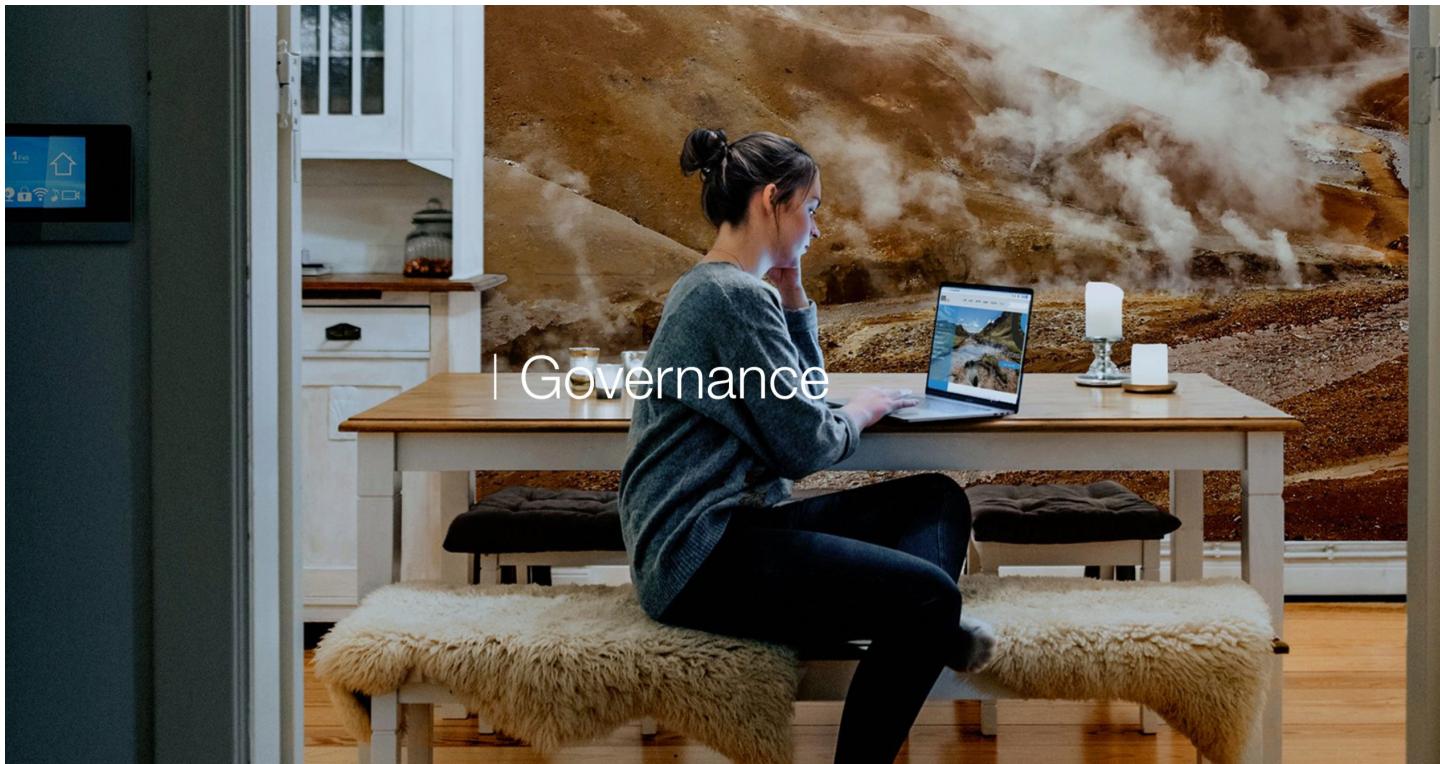
The most widely used knowledge from our collaboration with many other scientists is the sequestration of geothermal gas emissions in basalt. A broad variety of media outlets around the globe have covered Reykjavik Energy and ON Power's project in the Hellisheiði Geothermal Power Plant, which is considered unique.

Queries to Service Desk

In 2019, about 140 thousand queries were logged at the joint service desk of Reykjavik Energy, Veitur Utilities, ON Power and the Reykjavik Fiber Network. Most of them were from customers who were submitting meter readings themselves and others were queries or other issues concerning bills. The pie chart shows the breakdown of queries per category and the attachment below focuses specifically on notifications and complaints related to environmental issues. There is also an overview of notifications to licensing authorities. Our collaboration with licensing authorities, stakeholders and customers is important to us because it helps us to understand what matters most to people. Examples of this include regular meetings with licensing authorities and knowledge dissemination via social networks.

Queries to service desk



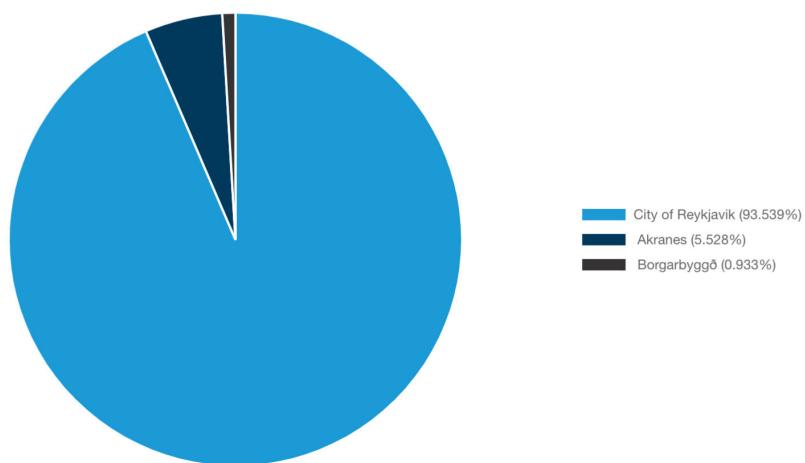


I Governance

Our Corporate Governance Policy is designed to ensure professionalism, efficiency, cost effectiveness, transparency and responsible management. The principal operations of Reykjavik Energy are governed by Act no.136/2013. The owners of the company renewed the collective ownership contract on operations in 2014. The ownership policy was also revised. The policy contains stipulations regarding corporate governance. The drafting of these documents, the Articles of Association of Reykjavik Energy and Rules of Procedure for all the boards, took into account the guidelines, which the Chamber of Commerce established in collaboration with the Confederation of Icelandic Employers and Nasdaq.

Reykjavik Energy believes that the company's Corporate Governance Policy fulfils these guidelines.

Owners of Reykjavik Energy



G1 Board-Diversity

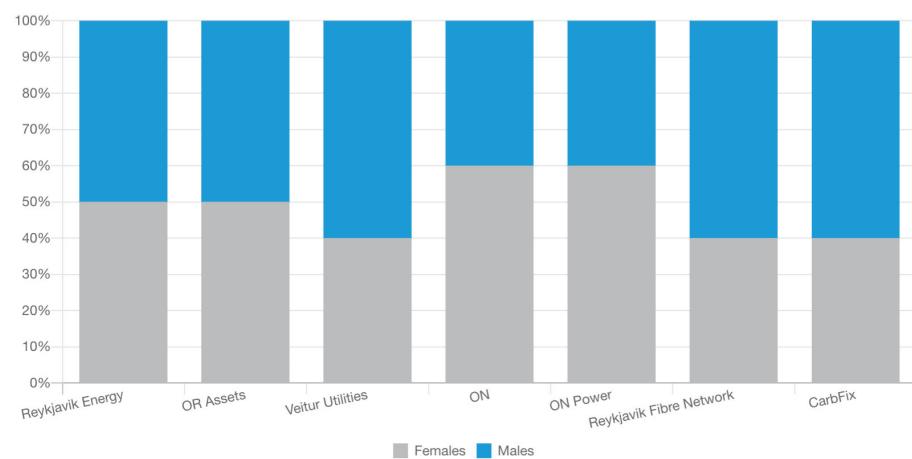


Promotes UN's Sustainable Development Goals

Reykjavik Energy Group has seven subsidiaries. ON Power and CarbFix joined the Group in 2019. The parent company's Board of Directors appoints OR Eigna's Board and shall, among other things, possess the knowledge, skills, and experience necessary for performing their duties. Members of the Boards of Directors of the Group's subsidiaries are also expected to fulfil the same requirements.

Two committees operate on behalf of Reykjavik Energy's Board. The Board appoints one representative to Reykjavik City's auditing committee and appoints its own remuneration committee. The Board's auditing committee representative is female and she is also Chairman of the Remuneration Committee. There are a total of 37 seats on the various boards of the Group.

Diversity on boards of directors within the Reykjavik Energy Group



My carbon footprint

12.67 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Simon Harald Kluepfel

Specialist in reservoir research, Reykjavik Energy

I didn't realise my carbon footprint was very high, before I calculated it. It's higher than the Icelandic average. Travel, particularly air travel, has a major impact. We need to be more aware of consumption and food. The calculator only gives a rough picture but it made me more interested in examining my footprint more closely to see what can be changed immediately and what

has the most impact.

| G2 Board Independence

The Board of Directors of Reykjavik Energy comprises six members. Five of them, including the Chairman and Vice-Chairman, are appointed by the Reykjavik City Council and one is appointed by the Municipal Council of Akranes. The local authority of Borgarbyggd nominates one observer to the Board. The Chairman of the Board may not take on any other position at Reykjavik Energy.

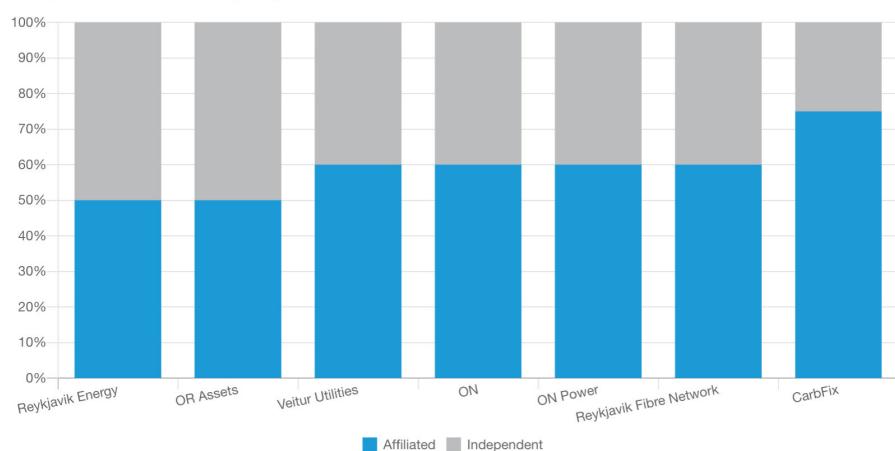
The Board of Directors appoints the CEO of the company, writes the job description and handles any termination of employment. The CEO handles the day-to-day management of the company and manages holdings in Reykjavik Energy's subsidiaries.

The CEO of Reykjavik Energy may not be a member of the Board of Directors of Reykjavik Energy and board members of Reykjavik Energy may not sit on the boards of subsidiaries.

The Rules of Procedure of the board and the job description of the CEO stipulate a division of tasks between the CEO and Board of Directors.

Reykjavik Energy's CEO cannot take seat on subsidiaries' Boards but three of its members must be Reykjavik Energy employees, one of whom shall be at the executive level. He or she shall be Chairman. Two of the board members of the ON, ON Power, Veitur Utilities and Reykjavik Fiber Network Boards of Directors shall be external experts in fields pertaining to the speciality of the company in question.

Independent of the company or its owners



The Board of Directors of Reykjavik Energy places an emphasis on transparency. The minutes of its board meetings and meeting documents are not confidential and can be accessed by the public on the company website. The minutes of the board meetings contain, among other things, a record of all the decisions of the board and board members have the right to have their positions on specific issues briefly noted in the minutes.

G3 Incentivized Pay

OR

5
10
100

10
100

Promotes UN's Sustainable Development Goals

The ownership policy of Reykjavik Energy stipulates that the salaries of CEOs shall be on a par with comparable jobs, but take into consideration the fact that the company is owned by public bodies. The salary terms of CEOs and other members of the personnel of Reykjavik Energy shall not be leading in the labour market.

In no employment agreements between Reykjavík Energy and management or staff are there direct correlation between the salaries and specific yardsticks in operations, financial or otherwise. All staff regularly undergoes performance appraisal relating to targets the respective employee is supposed to work towards. These targets can be of financial, environmental, or social nature, depending on the job. The result of the appraisal can lead to changes in wages although pay decisions follow a separate process..

Board of director fees and the salaries of the CEO and other top executives are specified in the annual financial statements of the Reykjavik Energy Group.

G4 Collective Bargaining

OR

8
100

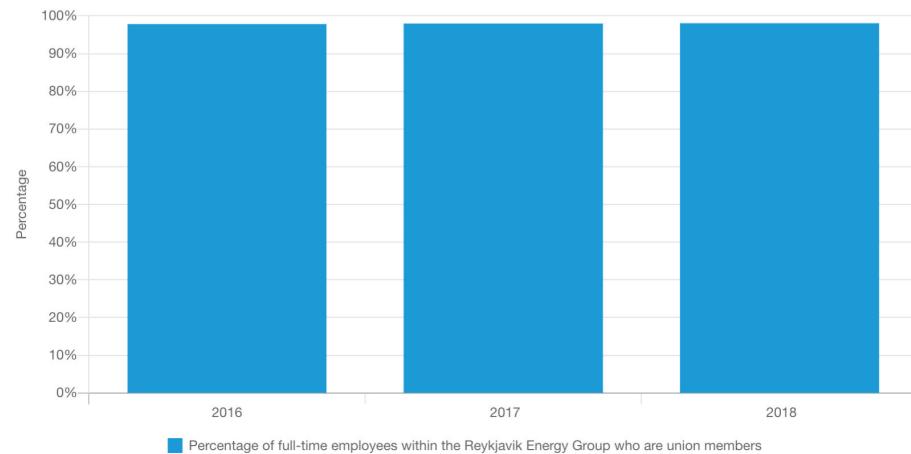
10
100

Promotes UN's Sustainable Development Goals

Reykjavik Energy is a member of the Confederation of Icelandic Employers through its membership of the Samorka Federation of Energy and Utility Companies. Reykjavik Energy negotiates with trade unions in collaboration with the Confederation of Icelandic Employers. Reykjavik Energy also directly communicates with unions. Employees are free to be members of the trade union of their choice, in accordance with labour market regulations, or they can opt not to join a union.

The company makes individual employment contracts, based on collective wage agreements with the unions, with all its full-time employees. These specify, among other things, their salaries. Reykjavik Energy uses numerous contractors. The rights of contractors' employees are discussed in the chapter on corporate social responsibility.

Union membership



G5 Supplier Code of Conduct

OR



Promotes UN's Sustainable Development Goals

Reykjavik Energy's policy is to issue open calls for tender for the purchase of goods, services and construction work, and to accept the most favourable offers. Otherwise private requests for tenders shall be made, mostly through invitations for bids, direct contracts or direct procurement. The favourability of offers is often evaluated on the basis of more factors than price. These include, among others, safety and environmental issues and there are provisions in the tender documents to avoid the constant changing of National ID numbers by certain companies.

There is an effort to fully utilise materials that have been purchased or are in stock or to sell them off. There was a good usage of older inventories in 2018 and the stock position for goods that were older than two years decreased by 27% between years.

Reykjavik Energy has laid down joint liability in its work contracts with a view to protecting the rights of the employees of contractors and their sub-contractors. Evaluations of contractors are based on their performance in security and environmental issues as well as the quality of their work and reporting. If a contractor's performance is deemed unsatisfactory in the evaluation, the transaction is halted, at least temporarily.

Eco-friendly labels are favoured in the procurement of operational goods, such as paper and detergents, for example. About 55% of the procurement in 2019 of photo-copying paper, envelopes, printed material, detergents, stationery and printing cartridges carried eco-friendly labels. Printing and photocopying is controlled and has contracted by 40% since 2015, see annex.

The Reykjavik Energy Group has not screened its suppliers according to environmental indicators. The companies do not have any assessments of the potential or real risks posed by the negative environmental impact of their supply chain or responses to those impacts.

In 2019, there were no cases of a bid being rejected on suspicion of an abusive change of national ID number nor because of an unsatisfactory result in the evaluation of a contractor. In 2017, a bid for one project was halted in accordance with Reykjavik Energy's measures against the abusive changing of a national ID number.

Reykjavik Energy Procurement Overview 2018	Total ISK	Percentage 2019	Percentage 2018	Percentage 2017
Tendering	11,311,163,387	61%	60%	52%
Procurement contracts and agreements	5,438,961,777	23%	22%	30%
House rental	357,835,603	1%	1%	2%
Public institutions	317,544,372	1%	1%	2%
Transactions below policy amounts	2,526,852,761	10%	10%	10%
Transactions within the Reykjavik Energy group	4,928,035,602	5%	5%	5%
Procurement total	24,880,393,503	100%	100%	100%



My carbon footprint

9.74 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Sigrún Helga G. Flygenring

Servicing officer at Technical Services, Reykjavik Energy

I am reasonably well aware of environmental issues such as the sorting of waste. I eat little meat and I try to buy less, but I know I can do a lot better. The results show that my carbon footprint is below the Icelandic average, but also show that I need to make extensive changes in my life to meet the specified criteria. Global warming is a reality and the struggle against it is an issue that

affects all of us. Everyone needs to do their bit to combat this threat.

G6 Ethics & Anti-Corruption

OR



The Code of Conduct of Reykjavik Energy is founded on integrity, which is one of the company's values. The code of conduct is registered and public and should help the staff to allow integrity, respect and non-discrimination characterise all their dealings, whether they be with customers, colleagues, management, contractors or other stakeholders. These are not exhaustive and do not exonerate us from the responsibility of following our own conscience when ethical issues arise.

The code of conduct was established by the management for Reykjavik Energy in the year 2000 and were examined, reviewed and approved by the Board of Directors of Reykjavik Energy in 2017. They form part of the board's rules of procedure. They are introduced to new employees, accessible to all staff and are specially referred to in signed employment agreements. If an employee considers the code has been breached or is confronted with an ethical issue, he/she can approach a supervisor or colleague he/she trusts. If an employee considers there has been a violation of the code, such as bullying or harassment, he/she can also directly approach an external counsellor, and the established procedure will then take over, anonymously if requested.

Following an internal audit conducted on Reykjavik Energy in 2018, rules on how to respond to harassment in the workplace were updated in accordance with current regulations.

At Reykjavik Energy there are registered work procedures for the processing of issues when an employee or executive is alleged to have violated company rules or committed fraud at work. The rules of procedure are accessible to all employees. Suspected violations should be made known to the next supervisor or internal auditor of the company, who must be informed of it, but this information is treated as confidential to protect the anonymity of the informer.

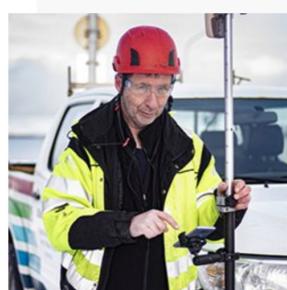
The management of Reykjavik Energy, managing directors and directors are responsible for the internal supervision of their specific divisions. Quality Control is responsible for ensuring that Reykjavik Energy's internal monitoring system is effective. Reykjavik Energy's quality control system is independently certified by external entities. Reykjavik Energy complies with the standards of the internal auditors association when conducting internal audits. The Internal Audit Division of the City Council of Reykjavik fulfils the function of internal auditors of Reykjavik Energy. Within Reykjavik Energy there are compliance officers who supervise the disclosure of information to the Stock Exchange and Financial Supervisory Authority.



My carbon footprint

8.73 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Sveinbjörn Sveinbjörnsson

Master plumber, Veitur Utilities

My family and I have taken a number of measures to reduce our carbon footprint. I go to work on an electric bike when the weather allows or by carpooling or walking. I also put less food on my plate and I'm trying to eat more vegan food. We conscientiously sort waste, beyond what is recommended. I have also used introduced mitigation measures by collecting seeds and planting them. I

planted 30 trees in 2019 and aim to plant 100 trees in 2020.

| G7 Data Privacy

A new act on Data Protection and the Processing of Personal Data came into effect in 2018. The nature of our operations requires us to receive and send data to customers and business associates who trust us to protect any personal information. The Reykjavík Group operates in full compliance with the stricter requirements now in place. The Group began preparations for the implementation of the new law in 2016. The implementation procedure was completed in 2018, when our Data Protection Policy was approved by all the companies within the Group. This was preceded by the extensive revision of work procedures. Well attended courses were also held on the topic.

| G8 ESG Reporting



12 ESG REPORTING
Promotes UN's Sustainable
Development Goals

Multiple factors determine whether the operations of Reykjavík Energy and its subsidiaries - Veitur Utilities, ON Power and the Reykjavík Fibre Network - are sustainable. This condensed report takes into account the factors, which Reykjavík Energy considers to be the most important. The Report is also an annual sustainability report. The Report is a part of Reykjavík Energy's annual financial statements and is referred to in company releases to the stock exchange. Company websites contain some information on environmental, financial and personnel issues, which are often updated more than once a year.

A report was published in 2018 on the international evaluation of the sustainability of the Hellisheiði Geothermal Power Plant. The evaluation was based on the Geothermal Sustainability Assessment Protocol (GSAP) which is being developed on behalf of the Icelandic government and geothermal steam companies in Iceland. The Hellisheiði Geothermal Power Plant is the first operating power plant to be assessed using the Protocol.

The main conclusion of the sustainability evaluation was that the Hellisheiði Geothermal Power Plant has a negligible effect on the environment and community and has an important socio-economic impact, particularly in the production of clean and cheap electricity and hot water to meet the needs of the capital area. However, the assessment also revealed one deviation from best practice. ON Power is currently assessing the issue.

| G9 Disclosure Practices

Reykjavík Energy's Sustainability Report is published in accordance with Nasdaq's ESG Reporting Guide for Nordic & Baltic Markets, issued in March 2017. These guidelines are based on guidance from the United Nations' Sustainable Stock Exchange Initiative and the World Federation of Exchange. References to the UN's Sustainable Goals have been added. We follow the provisions of the Icelandic Law 3/2006 on financial statements, as amended with reference to EU directive 2013/34.

Reykjavík Energy's Board of Directors has decided to focus on 4 of the 17 UN Sustainability Development Goals:

- #6 Clean water and sanitation
- #7 Affordable and clean energy
- #12 Responsible consumption and production
- #13 Climate action

Editorial board of Reykjavík Energy's 2018 Annual Report: Eiríkur Hjálmarsson, Communications Officer at OR, Hólmfríður Sigurdardóttir, Director of Environmental Affairs, Ólöf Snæhólm Baldursdóttir, Communications Officer, Þorsteinn Ari Þorgerisson, specialist in earth sciences, and Davíð Örn Ólafsson, specialist in treasury and financial analysis at Reykjavík Energy.

Website: Overcast.

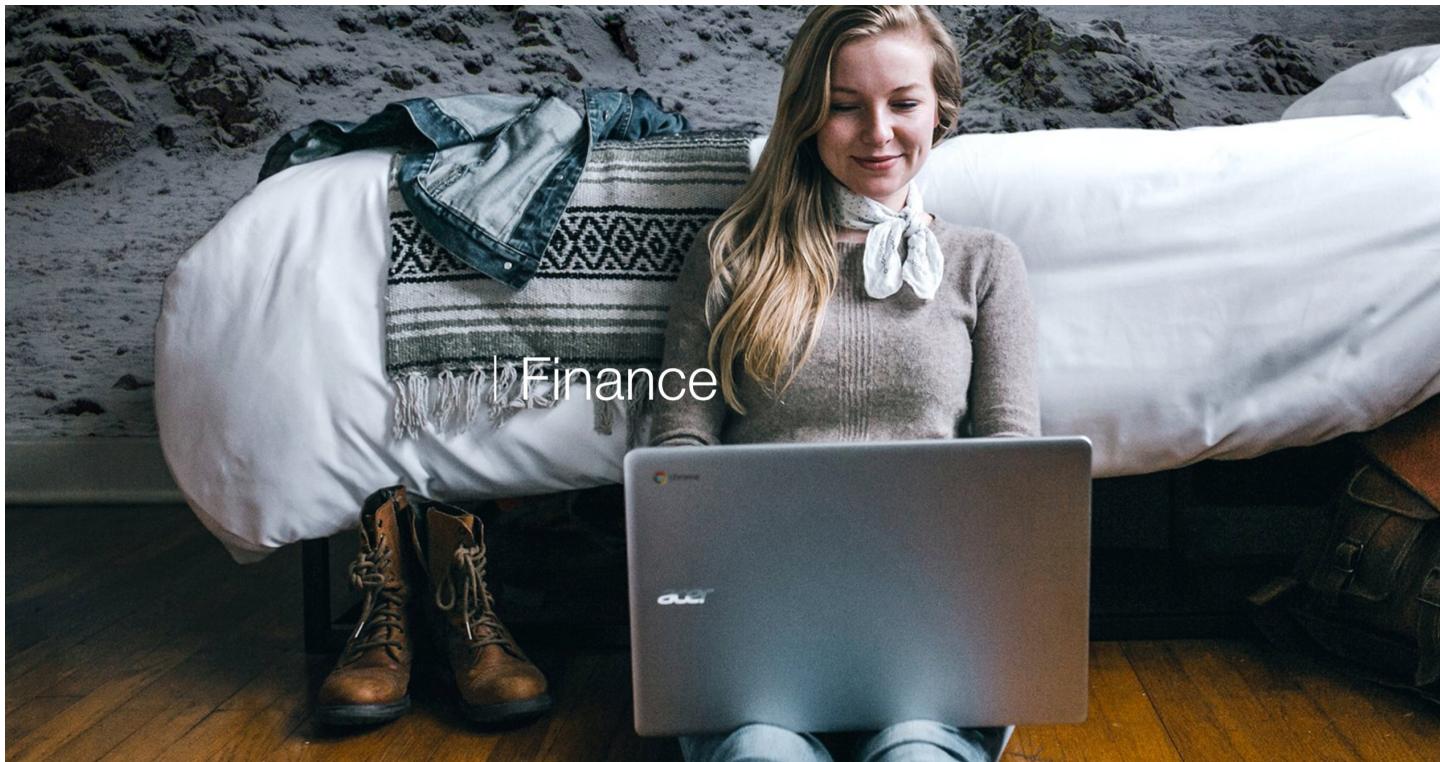
Design: Hvítá húsið

| G10 External Assurance

The corporate social responsibility and corporate governance elements in this annual report were audited by Versa ehf.

The environmental aspects of the report were audited by VSÓ Consulting.

The external auditors of Reykjavík Energy are Grant & Thornton.



The year 2019 was a year of considerable investments for the OR Group. They amounted to ISK 19.4 billion, increasing by ISK 3 billion from the previous year. The main reason are increased activities in the construction of housing in the company's main operating area. The company's solid finances enabled it to meet this growth and finance it in a favourable manner.

In 2019, Reykjavik Energy began issuing green bonds to partially finance these large investments following an independent rating agency's assessment of the issuance. The bonds received the highest grade, dark green, both for the relevant projects' sustainability and governance of the issuance. OR's bonds, first green bonds from Icelandic companies, were offered in open tendering and subsequently listed on the Nasdaq Iceland Sustainable Bonds Market.

Efficiency is one of Reykjavik Energy's values, and one that is particularly applicable to the company's finances. Financial objectives are pursued to ensure that Reykjavik Energy and its subsidiaries:

- have sound finances,
- operate with an acceptable level of risk,
- offer fair prices for services,
- pay owners dividends from their assets.

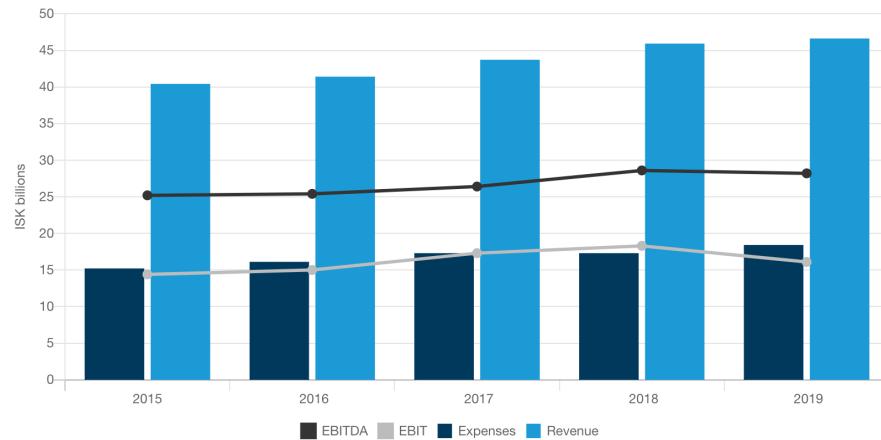
Reykjavík Energy, which is entirely owned by municipalities, considers that sound finances promote the UN's sustainable development goal 11 for sustainable cities and communities.

| Revenue, Expenses, EBITDA and EBIT

Stability characterises main metrics in Reykjavik Energy's finances over the past few years. The rise in revenues is primarily due to an increase in sales and the principle reason for decrease in EBIT and EBITDA in 2019 are the considerable investments.

EBITDA stands for earnings before interest, taxes, depreciation and amortization. EBIT stands for earnings before interest and taxes.

Revenue, Expenses, EBITDA og EBIT



My carbon footprint

6.59 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Jóna Sigurlína Pálmadóttir

Geothermal Energy Exhibition staff member, ON Power

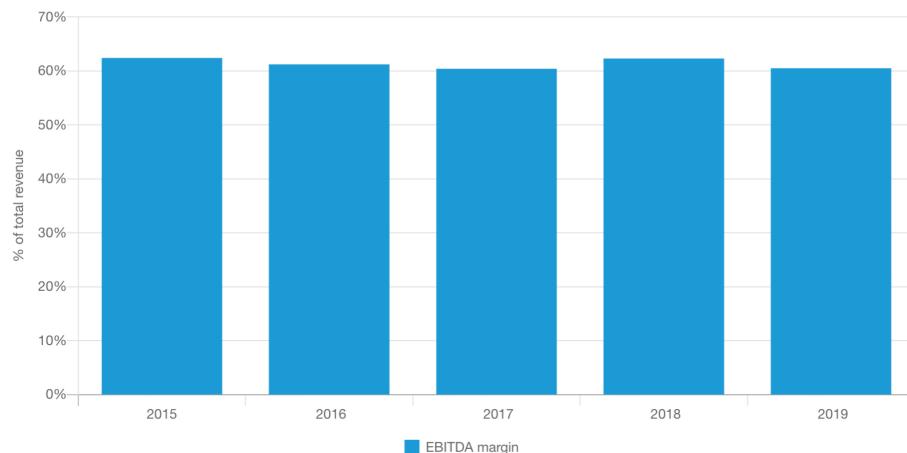
I spend very little on myself and mainly spend my money on food and staples and only buy things when I need them. This result therefore comes as a real surprise to me. I think the main reason for my high consumption is the loan on my car. Then there is meat eating which also has a deep impact on the carbon footprint. My carbon footprint is somewhat below average, but I still need to

improve. Eating less meat is the next step.

| EBITDA Margin

Reykjavik Energy Group's operational margin has been stable and sound over the past years. The operational margin must, among other things, support the investments of the companies in the Group. Operations require substantial investments to be able to maintain the utility systems and power plants, tend to new customers and meet increased demands placed on operations. Here is the margin as a percentage of total revenue.

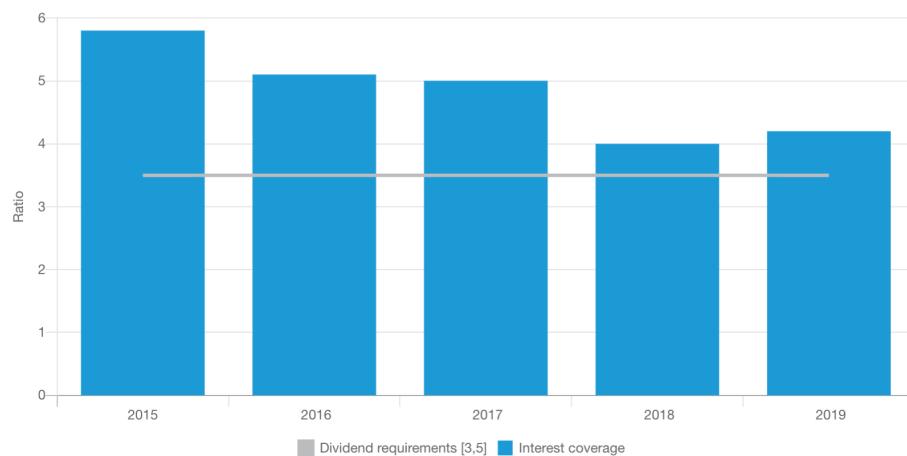
EBITDA margin



| Interest Coverage

This performance indicator demonstrates how capable the company is of honouring its interest expense obligations. The company's owners have put forward conditions to pay out dividend which stipulates that cash from operations plus interest expenses shall be at least 3.5 times higher than interest expenses. Reykjavik Energy fell short of that target in the immediate aftermath of the financial crisis, but exceeded it from 2010 onwards.

Interest coverage

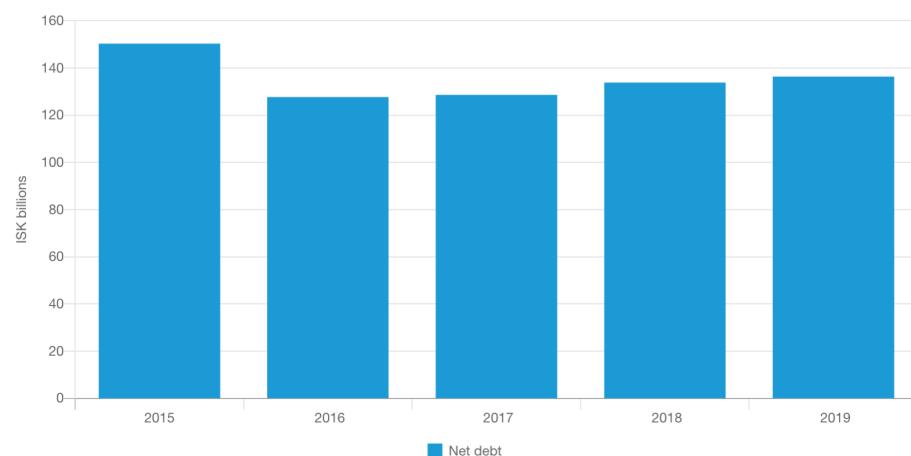


| Net Debt

The heaviest debt load was at the end of 2009. At that time, net debt amounted to ISK 226.4 billion, thus net debt has been reduced by ISK 90 billion at the end of 2019.

Net debt is interest-bearing debt excluding interest-bearing assets.

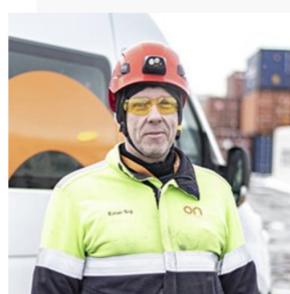
Net debt



My carbon footprint

8.62 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Einar Sigurðsson

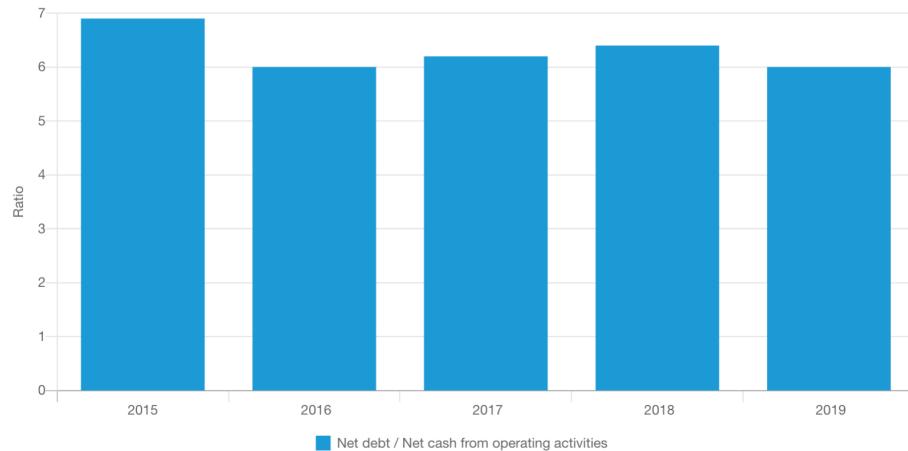
Energy distribution electrician, ON Power

I probably need to start thinking about getting an electric vehicle and reducing my air travel as much as possible. The fact that I am a gadget addict and always have to have the latest increases consumption and consequently has a negative impact on my carbon footprint. But I eat a lot of vegetables. But it is not good for ON Power if everyone reduces their energy consumption.

| Net Debt / Net Cash from Operating Activities

This performance indicator shows the ratio between net debt and cash at the end of the year. The indicator shows how many years it would take for the company to pay net debt with cash if it were only used to pay down debt.

Net debt / Net cash from operating activities



Appendices and links

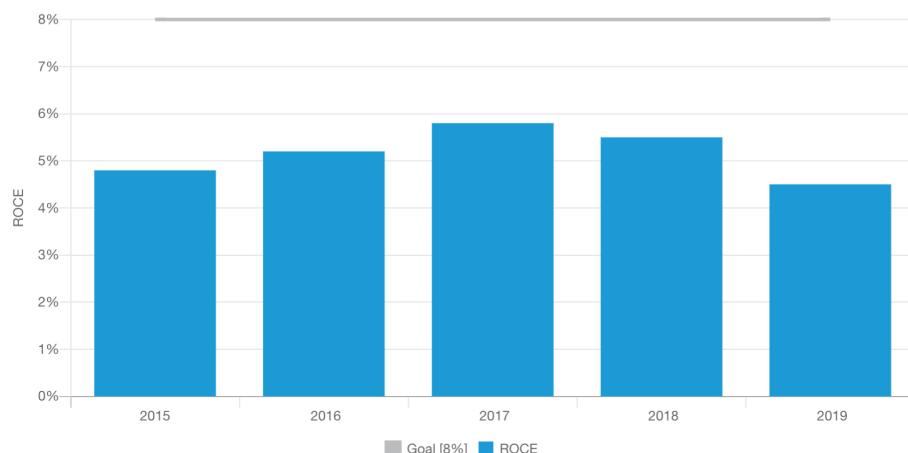
Reykjavik Energy - Consolidated Financial Statements 2019 [↗](#)

| ROCE

Reykjavik Energy's Ownership Policy provides for the implementation of a yardstick that shows returns on the capital employed by the owners in operations. It should, at the very least, exceed the company's financing costs in addition to a reasonable risk premium.

In October 2018, the board of directors of Reykjavik Energy approved a dividend policy and it was endorsed at an owners' meeting in November 2018.

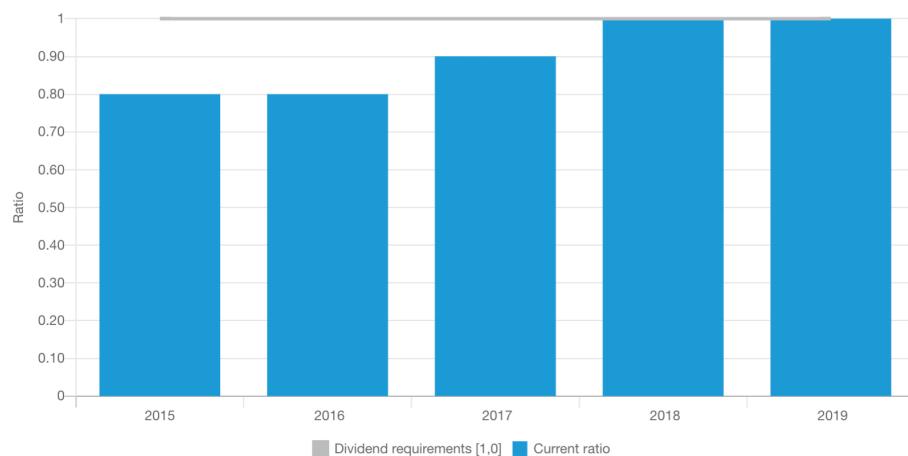
ROCE



| Current Ratio

Reykjavik Energy's objective is to have a current ratio that is no lower than 1, which is one of the conditions for paying out dividends to the owners. This means that the company must have a sufficient cash flow to meet obligations for the next 12 months.

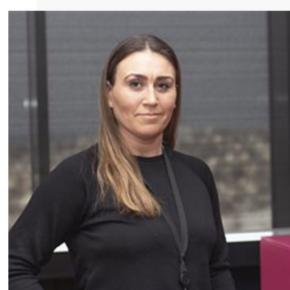
Current ratio



My carbon footprint

11.73 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Pórunn Ása Þórisdóttir

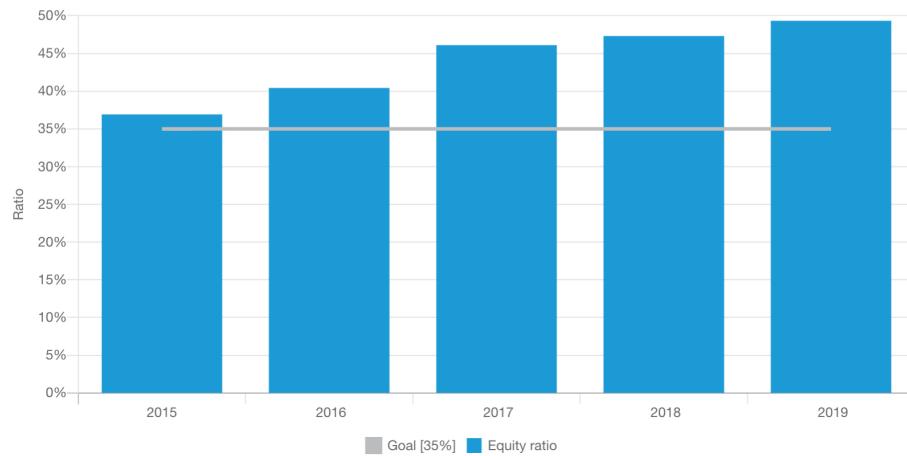
Project manager of technical services and delivery department, Reykjavik Fibre Network

Using the carbon calculator gives one an overview and ideas on improvements that can be made. I had never thought of, for example, turning the radiators down more often or switching from regular light bulbs to LED lights. Bad ways of thinking need to be corrected so that behaviour can change. Why, for example, do I automatically think of driving to work when I could cycle? Or go to the store several times a week when one trip would be enough? And why doesn't the family do a better job at using leftovers, when other meals can be made from them. This all matters.

| Equity Ratio

The equity ratio indicates how much debt a company has compared to its assets. The total assets of Reykjavik Energy were estimated at ISK 340.1 billion at the end of 2019. OR's objective is to ensure that the equity ratio does not go below 35% - 40% in the long-term.

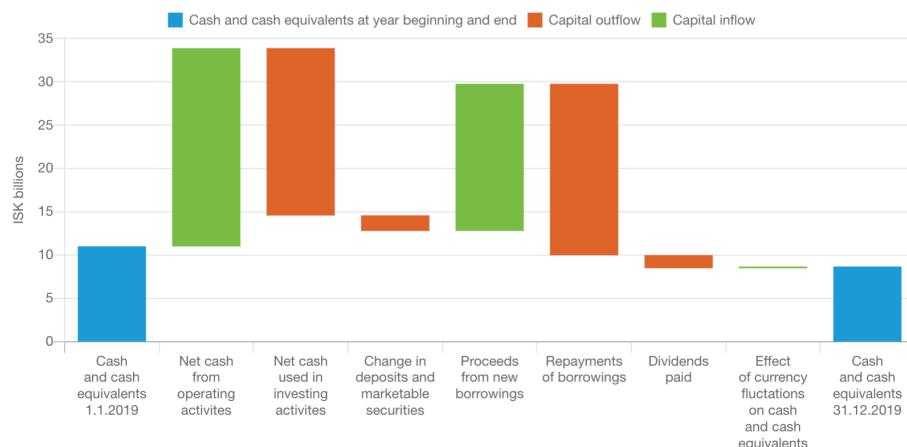
Equity ratio



| Cash Flow

In the profit and loss account and balance sheet of each company are many calculated figures that should give a clear picture of operations during a specific period and position at the end of it. However, the cash flow overview provides a clearer view of the real cash flow and which factors have an impact on the company's cash position in the period. Furthest to the left one can see the cash position at the beginning of 2019 and, to the right, cash and cash equivalents, marketable securities and deposits at the end of the year.

Cash flow



| Credit Rating

Credit ratings are important for companies that do business with international financial institutions. The purpose of the rating is to give creditors an objective assessment of a company's financial standing and future prospects. The credit ratings of Reykjavik Energy and other Icelandic companies can never surpass the sovereign rating of Iceland. The owners' guarantee on OR's loans have a positive impact on the company's rating. Reykjavik Energy is currently rated by three agencies: Moody's, Fitch Ratings and Reitun Rating Iceland.

	Moody's	Fitch	Reitun
Long term	Ba1	BB+	i.AA3
Outlook	Positive	Stable	Positive
Date	March 2018	April 2019	August 2018



My carbon footprint

7.18 tons CO₂ equivalents per year

An Icelander's carbon footprint is about 12 tons per year



Jón Pétur Skúlason

Specialist in tendering and making contracts, Reykjavik Energy

I don't know whether this is a big carbon footprint when compared to other Icelanders, but the greatest impact probably comes from the fact that I always walk to work without exception. The best way for me to reduce my footprint is probably to shift my eating more towards the plant kingdom, although I can't really see that

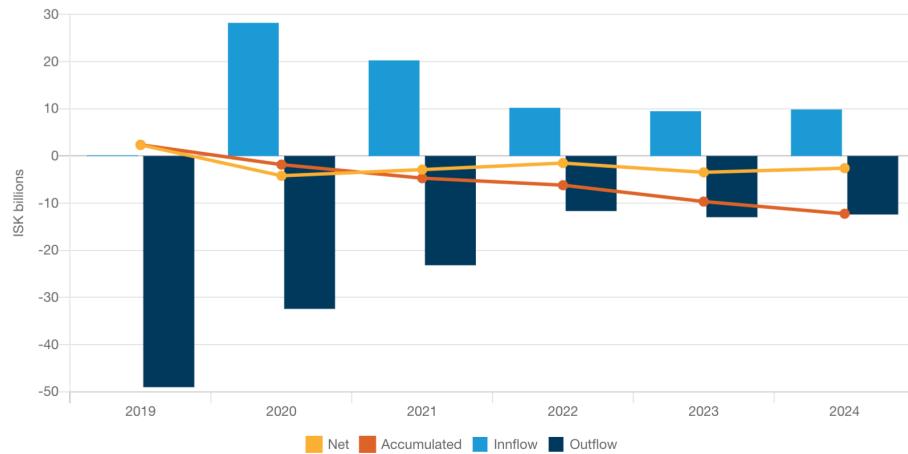
happening in the near future.

| Risk Management

Currency Risk

Reykjavik Energy's currency risk is mainly due to borrowing in foreign currencies and foreign revenues from Reykjavik Energy's subsidiary ON Power due to electric sales in USD. Reykjavik Energy's risk policy includes limits on possible currency imbalance in operations and on the balance sheet. Forward contracts are entered into with the aim of reducing the risk of unfavorable exchange rate fluctuations. The graph shows the estimated cash flows of foreign currencies for the next few years.

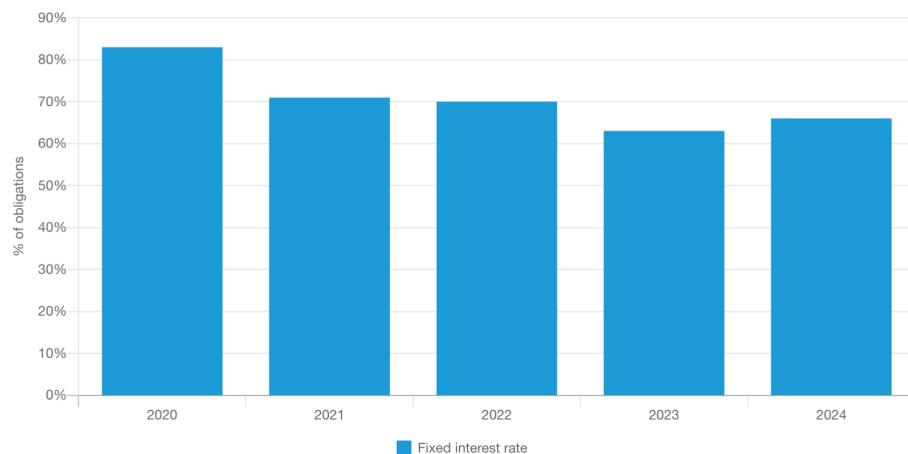
Estimated currency flow



Interest Rate Risk

Higher interest rates pose a risk for Reykjavik Energy's operations and balance sheet. This risk has been mitigated in the past few years by fixing interest rates with interest rate swaps. The columns show to what degree the overall liabilities for each year have fixed rates. Reykjavik Energy's risk of higher interest is now insubstantial.

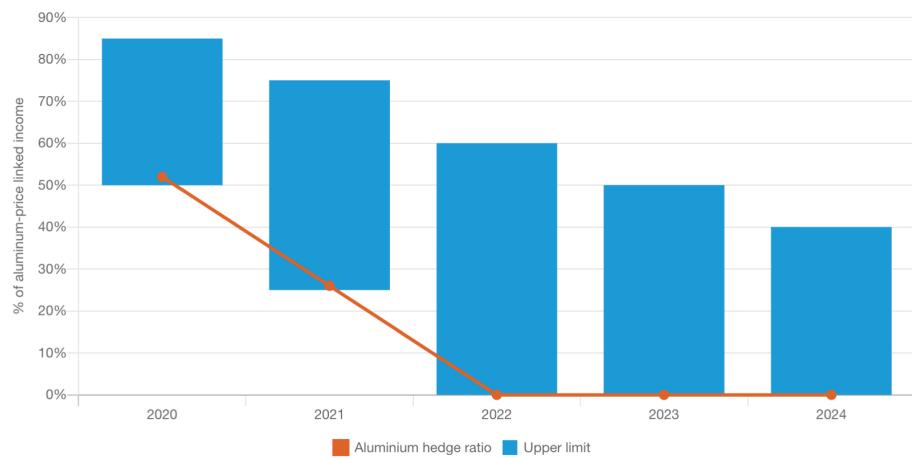
Interest Rate Risk



Aluminum Price Risk

Reykjavik Energy executes aluminum hedge contracts to hedge aluminum linked revenues against sharp declines in aluminium prices. Hedges are executed for a few years ahead and the graph shows to what extent revenues have been hedged. The board of directors decides the upper and lower limit of the aluminium hedge ratio.

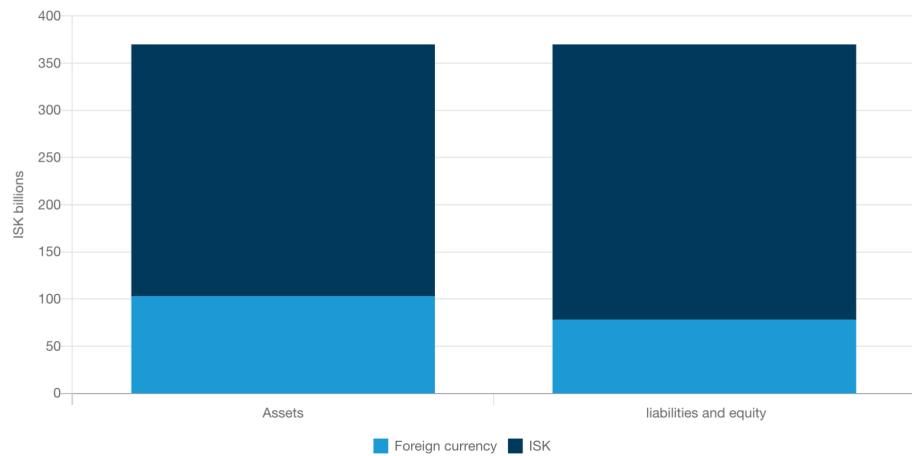
Aluminum Price Risk



Currency Risk on Balance Sheet

Reykjavik Energy's foreign assets exceeded the company's foreign debt at year end 2019. The reason is that the operational currency of Reykjavik Energy subsidiary, ON Power, is in USD. ON Power assets are greater than all Reykjavik Energy's liabilities in foreign currency.

Currency Risk on Balance Sheet



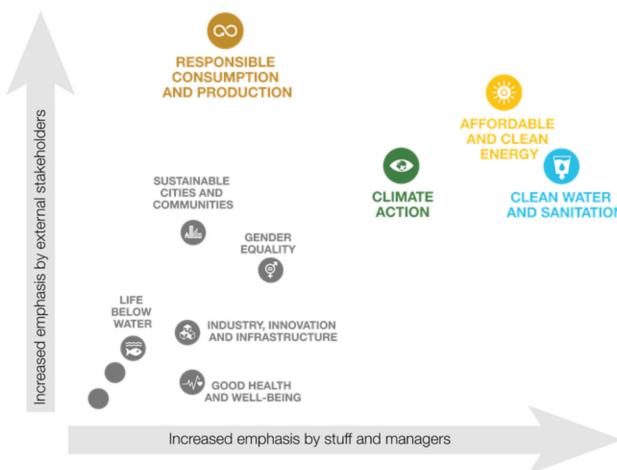
United Nations Sustainable Development Goals

How OR works to promote them

In accordance with the guidelines of the United Nations and recommendations of the Icelandic government, Reykjavik Energy has prioritized the UN's Sustainable Development Goals (SDGs) and emphasizes four of them in the group's operations. The prioritization process was conducted through four workshops: with managers within the Group, two with staff and one with external stakeholders. In the latter, representatives from public agencies, large suppliers of goods and services, large customers, contractors, and trade unions were included.

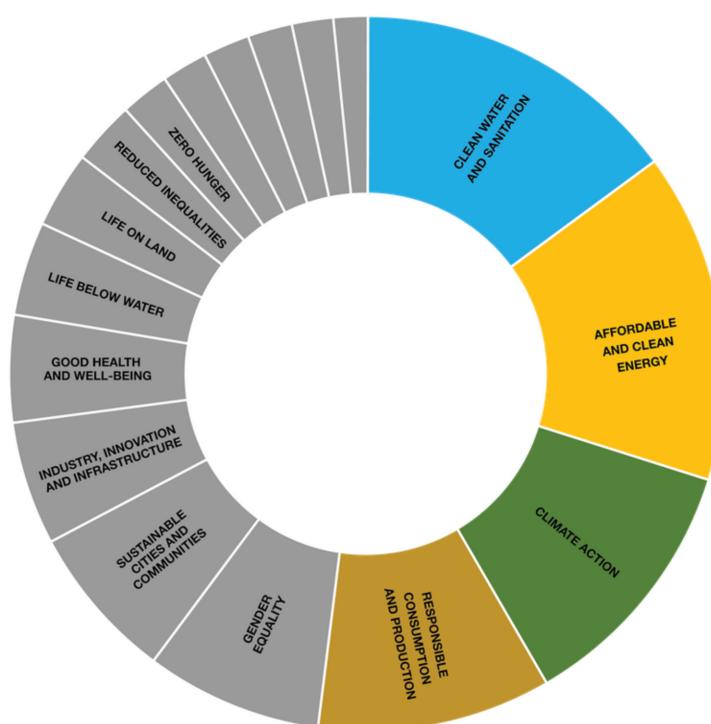
In the workshops, the participants ranked the SDGs, both with respect to where OR could have a positive impact on the progress of the goals and where there could be a risk that OR's activities could hinder progress. At its meeting on January 27, 2020, OR's Board of Directors decided, with reference to the results of the workshops, to place special emphasis on four SDGs. The company's policy documents will be reviewed in this regard as necessary.

Materiality matrix



The results of workshops on the prioritization of the SDGs.

Workshop results



Prioritization of external stakeholders compared to internal stakeholders from OR's materiality matrix with regard to the Sustainable Development Goals.



6 Clean water and sanitation

Acquisition and distribution of water for consumption, firefighting and the operation of sewerage are part of Reykjavík Energy's core activities.



7 Affordable and clean energy

Sustainable generation and distribution of electricity and heat are part of Reykjavík Energy's core activities.



12 Responsible consumption and production

Responsible procurement and reduction of waste are crucial to the way Reykjavík Energy fulfils its core activities.



13 Climate action

Focused climate action is an essential part of all business activities.

Goal 3 | Good health and well-being

3.4 Reykjavík Energy works to promote SDG 3's Target 3.4, which is: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. This indicator is prioritized by the Icelandic government..

3.4.1 Probability of dying of cardiovascular disease, cancer, diabetes, or chronic respiratory disease

[Environment | Use of Hazardous Substances](#)
[Society | S8 Global Health & Safety](#)
[Governance | G5 Supplier Code of Conduct](#)
[Governance | G6 Ethics & Anti-Corruption](#)

3.9 Reykjavík Energy works to promote SDG 3's Target 3.9, which is: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

3.9.1 Population in urban areas exposed to outdoor air pollution levels above WHO guideline values

[Climate Issues | The Electrification of Transport](#)
[Climate Issues | Innovation and Development Projects](#)

3.9.2 Mortality rate attributed to hazardous chemicals, water and soil pollution and contamination

[Environment | Water Protection and Water Management](#)
[Environment | E7 Environmental Operations](#)

Goal 4 | Quality Education

4.1 Reykjavík Energy works to promote SDG 4's Target 4.1, which is: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. This indicator is prioritized by the Icelandic government..

4.1.1 Percentage of children/young people at the end of each level of education achieving at least a minimum proficiency level in (a) reading and (b) mathematics. (Disaggregations: sex, location, wealth (and others where data are available))

[Society | S9 Child & Forced Labor](#)

4.4 Reykjavík Energy works to promote SDG 4's Target 4.4, which is: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. This indicator is prioritized by the Icelandic government..

4.4.1 Percentage of youth/adults with ICT skills by type of skill

[Society | S5 Temporary Worker Ratio](#)
[Society | Dissemination of Knowledge](#)

Goal 5 | Gender equality

5.1 Reykjavik Energy works to promote SDG 5's Target 5.1, which is: End all forms of discrimination against all women and girls everywhere. This indicator is prioritized by the Icelandic government..

5.1.1 Whether or not legal frameworks are in place to promote equality and non-discrimination on the basis of sex

[Society | S6 Non-Discrimination](#)

[Society | S9 Child & Forced Labor](#)

[Society | S10 Human Rights](#)

5.5 Reykjavik Energy works to promote SDG 5's Target 5.5, which is: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life. This indicator is prioritized by the Icelandic government..

5.5.1 Proportion of seats held by women in national parliaments and local governments

[Society | S4 Gender Diversity](#)

5.5.2 Proportion of women in managerial positions

[Governance | G1 Board-Diversity](#)

5.c Reykjavik Energy works to promote SDG 5's Target 5.c, which is: Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

5.c.1 Percentage of countries with systems to track and make public allocations for gender equality and women's empowerment

[Society | S2 Gender Pay Ratio](#)

[Society | Dissemination of Knowledge](#)

[Governance | G3 Incentivized Pay](#)

Goal 6 | Clean water and sanitation

6.1 Reykjavik Energy works to promote SDG 6's Target 6.1, which is: By 2030, achieve universal and equitable access to safe and affordable drinking water for all. This indicator is prioritized by the Icelandic government..

6.1.1 Percentage of population using safely managed drinking water services

[Environment | Water Protection and Water Management](#)

[Environment | E7 Environmental Operations](#)

6.3 Reykjavik Energy works to promote SDG 6's Target 6.3, which is: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. This indicator is prioritized by the Icelandic government..

6.3.1 Percentage of wastewater safely treated, disaggregated by economic activity

[Environment | E7 Environmental Operations](#)

6.a Reykjavik Energy works to promote SDG 6's Target 6.a, which is: By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

6.a.1 ODA for water and sanitation related activities and programmes

[Environment | Wastewater System Discharge](#)

Goal 7 | Affordable and clean energy

7.1 Reykjavík Energy works to promote SDG 7's Target 7.1, which is: By 2030, ensure universal access to affordable, reliable and modern energy services.

7.1.2 Percentage of population with primary reliance on clean fuels and technology

[Climate Issues | E1 Greenhouse Gas Emissions](#)

7.2 Reykjavík Energy works to promote SDG 7's Target 7.2, which is: By 2030, increase substantially the share of renewable energy in the global energy mix. This indicator is prioritized by the Icelandic government..

7.2.1 Renewable energy share in the total final energy consumption (%); or Renewable energy share in the total primary energy consumption (%)

[Climate Issues | E2 Emission Intensity](#)

[Climate Issues | E3 Energy Usage](#)

[Climate Issues | E4 Energy Intensity](#)

[Climate Issues | E5 Energy Mix](#)

[Climate Issues | The Electrification of Transport](#)

[Climate Issues | Innovation and Development Projects](#)

[Environment | E7 Environmental Operations](#)

[Environment | Management of Low-Temperature Fields](#)

[Environment | Management of High-Temperature Fields](#)

[Environment | Geothermal Park in Hellisheiði](#)

[Society | Dissemination of Knowledge](#)

Goal 8 | Decent work and economic growth

8.5 Reykjavík Energy works to promote SDG 8's Target 8.5, which is: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. This indicator is prioritized by the Icelandic government..

8.5.1 Average hourly earnings of female and male employees by occupations (Wages/Gender wage gap)

[Society | S2 Gender Pay Ratio](#)

8.8 Reykjavík Energy works to promote SDG 8's Target 8.8, which is: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

8.8.2 Number of ILO conventions ratified by type of convention

[Governance | G4 Collective Bargaining](#)

Goal 9 | Industry, innovation and infrastructure

9.4 Reykjavík Energy works to promote SDG 9's Target 9.4, which is: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

9.4.1 Carbon emission per unit of value added

[Climate Issues | E1 Greenhouse Gas Emissions](#)

[Climate Issues | E2 Emission Intensity](#)

[Climate Issues | E3 Energy Usage](#)

[Climate Issues | E4 Energy Intensity](#)

[Climate Issues | E5 Energy Mix](#)

[Climate Issues | The Electrification of Transport](#)

[Climate Issues | Innovation and Development Projects](#)

[Environment | E7 Environmental Operations](#)

[Environment | Management of Low-Temperature Fields](#)

[Environment | Management of High-Temperature Fields](#)

[Environment | Geothermal Park in Hellisheiði](#)

9.5 Reykjavík Energy works to promote SDG 9's Target 9.5, which is: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending. This indicator is prioritized by the Icelandic government..

9.5.1 R&D expenditure as a percentage of GDP

[Society | Dissemination of Knowledge](#)

Goal 10 | Reduced inequalities

10.1 Reykjavik Energy works to promote SDG 10's Target 10.1, which is: By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.

10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 percent of the population and the total population
[Governance | G3 Incentivized Pay](#)

10.2 Reykjavik Energy works to promote SDG 10's Target 10.2, which is: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status. This indicator is prioritized by the Icelandic government..

10.2.1 Proportion of people living below 50% of median income disaggregated by age and sex
[Society | S2 Gender Pay Ratio](#)
[Society | S9 Child & Forced Labor](#)
[Society | S10 Human Rights](#)

Goal 11 | Sustainable cities and communities

11.6 Reykjavik Energy works to promote SDG 11's Target 11.6, which is: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management. This indicator is prioritized by the Icelandic government..

11.6.1 Percentage of urban solid waste regularly collected and with adequate final discharge with regards to the total waste generated by the city.
[Environment | Wastewater System Discharge](#)

11.6.2 Annual mean levels of fine particulate matter (i.e. PM2.5 and PM10) in cities (population weighted)
[Climate Issues | E3 Energy Usage](#)
[Climate Issues | E4 Energy Intensity](#)
[Climate Issues | E5 Energy Mix](#)
[Climate Issues | The Electrification of Transport](#)
[Climate Issues | Innovation and Development Projects](#)
[Environment | E7 Environmental Operations](#)
[Society | Dissemination of Knowledge](#)

11.a Reykjavik Energy works to promote SDG 11's Target 11.a, which is: Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning. This indicator is prioritized by the Icelandic government..

11.a.1 Cities with more than 100,000 inhabitants that implement urban and regional development plans
integrating population projections and resource needs
[Environment | Water Protection and Water Management](#)
[Environment | E7 Environmental Operations](#)
[Environment | Management of Low-Temperature Fields](#)
[Environment | Management of High-Temperature Fields](#)

Goal 12 | Responsible consumption and production

12.6 Reykjavik Energy works to promote SDG 12's Target 12.6, which is: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

12.6.1 Number of companies publishing sustainability reports
[Governance | G8 ESG Reporting](#)

12.7 Reykjavik Energy works to promote SDG 12's Target 12.7, which is: Promote public procurement practices that are sustainable, in accordance with national policies and priorities. This indicator is prioritized by the Icelandic government..

12.7.1 Number of countries implementing Sustainable Public Procurement policies and action plans
[Environment | E7 Environmental Operations](#)
[Society | S9 Child & Forced Labor](#)
[Society | S10 Human Rights](#)
[Governance | G5 Supplier Code of Conduct](#)

Goal 13 | Climate action

13.2 Reykjavik Energy works to promote SDG 13's Target 13.2, which is: Integrate climate change measures into national policies, strategies and planning. This indicator is prioritized by the Icelandic government..

13.2.1 Number of countries that have formally communicated the establishment of integrated low-carbon, climate-resilient, disaster risk reduction development strategies (e.g. a national adaptation plan process, national policies and measures to promote transition to environmentally-friendly substances and technologies).

[Climate Issues | E1 Greenhouse Gas Emissions](#)

[Climate Issues | E2 Emission Intensity](#)

[Climate Issues | E3 Energy Usage](#)

[Climate Issues | E4 Energy Intensity](#)

[Climate Issues | E5 Energy Mix](#)

[Climate Issues | The Electrification of Transport](#)

[Climate Issues | Innovation and Development Projects](#)

[Environment | E7 Environmental Operations](#)

[Environment | Management of Low-Temperature Fields](#)

[Environment | Management of High-Temperature Fields](#)

[Environment | Geothermal Park in Hellisheiði](#)

[Environment | Land Improvements in Reykjavik Energy's Operating Areas](#)

[Society | Dissemination of Knowledge](#)

Goal 14 | Life below water

14.1 Reykjavik Energy works to promote SDG 14's Target 14.1, which is: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution. This indicator is prioritized by the Icelandic government..

14.1.1 Nitrogen use efficiency composite indicator

[Environment | E7 Environmental Operations](#)

[Environment | Wastewater System Discharge](#)

[Environment | Use of Hazardous Substances](#)

Goal 15 | Life on land

15.3 Reykjavik Energy works to promote SDG 15's Target 15.3, which is: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world. This indicator is prioritized by the Icelandic government..

15.3.1 Percentage of land that is degraded over total land area

[Climate Issues | Innovation and Development Projects](#)

[Environment | Land Improvements in Reykjavik Energy's Operating Areas](#)

Goal 17 | Partnerships for the goals

17.6 Reykjavik Energy works to promote SDG 17's Target 17.6, which is: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.

17.6.1 Access to patent information (WIPO Patent Database) and use of the international IP system

[Climate Issues | Innovation and Development Projects](#)

[Society | Dissemination of Knowledge](#)