Environmental data – Reykjavik Energy Group 2015-2019

The following table provides an overview of greenhouse gas emissions of the Reykjavik Energy Group in 2015 to 2019, as well as other information like energy consumption, waste and other performances.

KEY PERFORMANCE INDICATOR	UNIT	2015	2016	2017	2018	2019
Greenhouse gas emissions						
Scope 1[1]	t CO_2eq	52,100	44,000	40,500	42,500	43,500
Scope 2 (market-based)[2]	-	18,800	0	0	0	0
Scope 3[4]	-	1,500	1,400	1,700	2000	1,300
CARBON FOOTPRINT	**t CO_2eq**	**72,300**	**45,400**	**42,200**	**44,500**	**44,800**
Mitigation by land restoration	t CO_2eq	-6,500	-6,500	-6,500	-7,000	-7,750
There of wetland reclamation via Votlendissjódur fund by offsetting carbon emissions from car fleet	t CO_2eq	**65,800**	**38,900**	**35,700**	**37,500**	**37,050**
Carbon intensity						
Carbon intensity per unit of revenue	tCO_2 eq/ISK bn	1,794	1,097	959	961	961
Carbon intensity per unit of premises	tCO_2eq/thous.m m^3	93	58	54	57	57
Carbon intensity per employee	gCO_2e/employee	158	92	83	80	74
Carbon intensity per unit of produced electricity	g CO_2eq/kWh	10.4	8.9	8.1	7.4	7.5
Carbon intensity per unit of distributed electricity	-	1.0	1.0	1.0	1.2	0.8
Total carbon intensity per unit of produced electricity and distributed electricity	**g CO_2eq/kWh**	**11.4**	**9.9**	**9.1**	**8.6**	**8.3**
Weighted average of carbon intensity for hot water (Veitur Utilities)	-	4.4	3.6	3.2	3.2	3.2
Carbon intensity per unit of distributed hot water	-	0.8	0.8	0.7	0.9	0.5
Total carbon intensity of produced (ON/Veitur) and distributed (Veitur) hot water	**g CO_2eq/kWh**	**5.2**	**4.4**	**3.9**	**4.1**	**3.7**
Resulting pollutants of the electricity system (Indexes from Orkustofnun)[4,5]	-	157.7	460.3	477.1	443.1	443.1
Energy use						
Total energy consumption	kWh	355,719,140	356,365,730	387,841,270	370,274,830	369,739,270
There of fossil fuel	kWh	2,594,940	2,704,130	2,633,370	2,441,830	2,505,270
Vehicle fleet	liters	212,700	221,650	215,850	200,150	205,350
There of electricity	kWh	310,743,000	319,432,000	332,416,800	327,684,000	329,822,000
There of hot water	-	42,381,200	34,229,600	52,791,100	40,149,000	37,412,000
Percentage of renewable energy	%	99%	99%	99%	99%	99%
Electrical Guaranties of origin (GoOs) own use	kWh	119,152,610	0	0	0	0
There of ON Power (cancelled GoOs)	-	0	0	0	0	0
There of Reykjavik Energy 's waterworks and wastewater	-	18,598,000	0	0	0	0
There of Veitur Utilities	-	56,928,000	0	0	0	0
There of Reykjavik Fibre Networks	-	835,000	0	0	0	0
There of losses in distribution system (DSOs)	-	42,791,610	0	0	0	0
Hot and cold water						
Total hot and cold-water consumption	m^3	38,853,400	36,650,700	41,479,650	45,375,600	72,342,600
There of cold water	-	38,116,350	36,059,500	40,569,450	44,683,350	71,696,450
There of hot water	-	737,050	591,200	910,200	692,250	646,150
Waste						
Total waste generated annually	kg	1,025,550	1,412,750	1,777,950	1,660,550	1,585,000
Worksite waste	-	939,900	1,336,000	1,665,750	1,584,250	1,487,100
Office waste	-	50,450	44,650	62,000	42,900	50,000
Organic waste	-	26,100	20,200	25,800	27,000	37,700
Hazardous waste	-	9,100	11,900	24,400	6,400	10,200
Categorized waste	kg	951,150	1,301,850	1,640,050	1,515,600	1,450,800
Uncategorized / waste	kg	74,400	111,000	138,000	145,000	134,200
Ratio of categorized waste	%	93%	92%	92%	91%	91%
There of waste for landfill diversion	kg	812,400	1,139,000	1,473,000	1,320,000	1,340,900
There of recycled waste	kg	204,050	261,850	280,550	334,200	244,100
Ratio of recycled waste	%	19.9%	18.5%	15.8%	20.1%	15.4%
Ratio of hazardous waste	%	0.9%	0.8%	1.4%	0.4%	0.6%
Ratio of waste for landfill diversion	%	79.2%	80.6%	82.8%	79.5%	84.6%

KEY PERFORMANCE INDICATOR	UNIT	2015	2016	2017	2018	2019
Office paper consumption						
Total paper consumption	#sheets	588,200	631,400	457,200	425,650	365,050
There of colour printing	-	-	-	268,750	270,700	245,150
There of black/white printing	-	-	-	188,450	154,950	119,900
Total paper consumption (bills)	#sheets	998,250	717,700	614,900	564,900	512,950
Envelopes (bills)	#envelopes	512,450	362,750	305,550	270,950	252,100
More information from operations						
Fuel carbon tax paid annually	ISK	1,202,513	1,300,745	1,841,265	1,711,260	1,664,303
Revenue	ISK bn	40.3	41.4	44.0	46.3	46.6
Full-time employee	#	458	495	509	557	602
Premises	thousand m^3	780	780	780	780	780
There of space with LED	%	-	12%	23%	30%	
Total production of water	m^3	113,913,000	112,151,000	113,956,000	120,548,000	121,266,000
There of cold water	-	26,914,000	27,803,000	27,129,000	28,348,000	29,313,000
There of hot water from geoth. power plants	-	38,042,000	35,893,000	36,993,000	39,269,000	39,100,000
There of hot water from low temperature fields	-	48,957,000	48,455,000	49,834,000	52,931,000	52,853,000
Total production of energy	kWh	8,251,692,500	8,294,859,200	8,492,211,000	8,844,911,000	8,841,884,700
There of electricity production	-	3,249,250,000	3,411,110,000	3,473,297,000	3,506,531,000	3,537,972,000
There of hot water from geoth. power plants	-	2,187,415,000	2,078,204,700	2,162,994,000	2,273,675,100	2,243,724,000
There of hot water from low temperature fields	-	2,815,027,500	2,805,544,500	2,855,920,000	3,064,704,900	3,060,188,700
Electrical guarantees of origin (GoOs)[4,6]	kWh	3,004,820	3,152,754	3,214,757	3,202,411	3,276,960
Own cars and rented vehicles	#cars	169	177	192	191	218
There of electricity	-	12	21	23	29	40
There of plug-in hybrid	-	2	2	4	6	9
There of hybrid	-	19	19	13	9	9
There of methane	-	17	19	25	25	28
There of hydrogen	-	0	0	0	5	6
BREAKDOWN OF DATA						
Scope 1						
Scope 1, totoal direct emissions[1]	t CO_2eq	52,100	43,850	40,350	42,500	43,500
Emissions from production	-	51,550	43,300	39,800	42,000	43,050
Emissions from fuel consumption	-	550	550	550	500	450
Fuel consumption of automobiles	liters	212,700	221,650	215,850	200,150	205,350
There of methane	m^3	8,950	12,300	18,950	17,350	27,900
There of petrol	liters	26,650	22,700	16,200	13,500	10,500
There of diesel	-	177,100	186,650	180,700	169,300	166,950
Scope 2						
Scope 2, indirect emissions (marked-based)[3]	t CO_2eq	18,794	0	0	0	0
Scope 3						
Scope 3, total emissions3	t CO_2eq	1,465	1,370	1,665	2,040	1,335
There of emissions from waste	-	285	300	385	350	325
There of emissions due to employee's air travel	-	70	60	70	70	100
There of emissions due to employee's commuting to and from work[7]	-	110	110	110	120	110
There of constructions and maintenance	-	1,000	900	1,100	1,500	800
Mitigation projects[8]						
CO_2 sequestration by land restoration	t CO_2eq	-6,350	-6,400	-6,500	-7,000	-7,750
There of land reclamation	-	-1,200	-1,250	-1,300	-1,300	-1,300
There of forestry	-	-5,200	-5,200	-5,200	-5,200	-5,200
There of reclamation of wetlands	-	50	50	0	0	0
There of wetland reclamation via Votlendissjódur fund by offsetting GHG emission from car fleet, flights and more	-	0	0	0	-500	-1,250

[1] Scope1 or direct emissions from the Reykjavik Energy Group's (RE) operations. The emissions are from the geothermal power plants of ON Power, RE's subsidiary, due to the production of electricity and hot water, as well as Veitur Utilities' pipeline system and from the car fleet of the Group.
[2] Scope 2, indirect emissions from purchased electricity and heating for own use. Scope 2, Indirect emissions of the RE are zero. The reason for this is that the companies / subsidiaries produce electricity for the national grid and emission due to electrical productions are already counted for in Scope 1. In order to prevent double counting, no emissions are counted in Scope 2. GoOs were annulled for the RE Group in 2016 - 2019 but not for Veitur, the mother company and Reykjavik Fibre Networks 2015.
[3] Scope 3, indirect emissions from waste as well as emission from employees commuting to and from work and their air travel.
[4] Electrical Guaranties of origin (GoOs) in Iceland on Orkustofnun's web, https://orkustofnun,is/yfirflokkur/raforkunotandinn/uppruni-raforku/aforku.GoOs in Iceland for 2019 will be issued in the first half of 2020 and therefore the same values are used for 2018 and 2019.
[6] GoOs are issued for net production of the ON plants, ie. quantities produced less own use. GoOs are then used to confirm the origin of electricity consumption by customers on the general market. If interested, heavy industry in Iceland is offered GoOs, as well as other interested parties.
[7] Based on 223 working days per year, and that employee's passenger cars emit on average 127 g CO2/km (129 gr CO2/km 2019).
[8] Landreclamation: Sequestration of 2.75t CO2e per h/yr. Forestry: 6,3t CO2e per ha/yr and 2,000 trees/yr. As a result of reclaiming wetlands emissions is reduced by 20 tCO2e/ha.