Environmental data – Reykjavik Energy Group 2015-2018

The following table provides an overview of greenhouse gas emissions of the Reykjavik Energy Group in 2015 to 2018, as well as other information on environmental data like energy consumption, waste and other performance figures.

KEY PERFORMANCE INDICATOR	UNIT	2015	2016	2017	2018
Greenhouse gas emissions					
Scope 1[1]	t CO_2eq	52,102	43,903	40,386	43,509
Scope 2 (market-based)[2]	-	18,794	0	0	0
Scope 3[4]	-	1,113	1,110	1,159	1,077
CARBON FOOTPRINT	**t CO_2eq**	**72,009**	**45,012**	**41,545**	**44,586**
Mitigation by land restoration	t CO_2eq	-4,768	-4,815	-4,874	-5,387
There of wetland reclamation via Votlendissjódur fund by offsetting carbon emissions from car fleet	t CO_2eq	0	0	0	500
Carbon footprint reduced by mitigation projects	**t CO_2eq**	**67,124**	**40,198**	**36,671**	**39,199**
Carbon intensity					
Carbon intensity per unit of revenue	tCO_2 eq/ISK bn	1,787	1,087	944	963
Carbon intensity per unit of premises	tCO_2eq/thous. m^3	92	58	53	57
Carbon intensity per employee	g CO_2e/employee	157	91	82	82
Carbon intensity per unit of produced electricity	g CO_2eq/kWh	9.8	8.3	7.5	7.4
Carbon intensity per unit of distributed electricity	g CO_2eq/kWh	1.0	1.0	1.0	1.2
Total carbon intensity per unit of produced electricity and distributed electricity	**g CO_2eq/kWh**	**10.8**	**9.3**	**8.5**	**8.6**
Weighted average of carbon intensity for hot water (Veitur Utilities)	g CO_2eq/kWh	4.4	3.6	3.2	3.2
Carbon intensity per unit of distributed hot water	g CO_2eq/kWh	0.8	0.8	0.7	0.9
Total carbon intensity of produced (ON/Veitur) and distributed (Veitur) hot water	**g CO_2eq/kWh**	**5.2**	**4.4**	**3.9**	**4.1**
Resulting pollutants of the electricity system (Indexes from Orkustofnun)[4,5]	-	157.7	460.3	477.1	477.1
Energy use					
Total energy consumption	kWh	355,718,949	356,365,291	387,841,221	370,275,123
There of fossil fuel	kWh	2,594,769	2,703,691	2,633,321	2,442,123
Vehicle fleet	liters	212,686	221,614	215,846	200,174
There of electricity	kWh	310,743,000	319,432,000	332,416,800	327,684,000
There of hot water	kWh	42,381,180	34,229,600	52,791,100	40,149,000
Percentage of renewable energy	%	99	99	99	99
Electrical Guaranties of origin (GoOs) own use	kWh	119,152,610	0	0	0
There of ON Power (cancelled GoOs)	-	0	0	0	0
There of Reykjavik Energy ‘s waterworks and wastewater	-	18,598,000	0	0	0
There of Veitur Utilities	-	56,928,000	0	0	0
There of Reykjavik Fibre Networks	-	835,000	0	0	0
There of losses in distribution system (DSOs)	-	42,791,610	0	0	0
Hot and cold water					
Total hot and cold-water consumption	m^3	38,853,421	36,650,707	41,479,644	45,375,587
There of cold water	-	38,116,357	36,059,524	40,569,453	44,683,360
There of hot water	-	737,064	591,183	910,191	692,227
Waste					
Total waste generated annually	kg	1,025,500	1,412,800	1,778,000	1,660,400
Worksite waste	-	939,900	1,336,000	1,665,730	1,584,270
Office waste	-	50,440	44,670	62,000	42,910
Organic waste	-	26,100	20,200	25,800	27,000
Hazardous waste	-	9,100	11,900	24,400	6,400
Categorized waste	kg	951,140	1,301,860	1,640,030	1,515,580

Uncategorized / waste	kg	74,400	111,000	138,000	145,000
Ratio of categorized waste	%	93%	92%	92%	91%
There of waste for landfill diversion	kg	812,400	1,139,000	1,473,000	1,320,000
There of recycled waste	kg	204,040	261,870	280,530	334,18
Ratio of recycled waste	%	19.9%	18.5%	15.8%	20.1%
Ratio of hazardous waste	%	0.9%	0.8%	1.4%	0.4%
Ratio of waste for landfill diversion	%	79.2%	80.6%	82.8%	79.5%
Office paper consumption					
Total paper consumption	#sheets	588,213	631,379	457,203	425,652
There of colour printing	-	-	-	268,750	270,687
There of black/white printing	-	-	-	188,453	154,965
Total paper consumption (bills)	#sheets	998,248	717,698	614,885	564,933
Envelopes (bills)	#envelopes	512,439	362,754	305,536	270,942
More information from operations					
Fuel carbon tax paid annually	ISK	1,202,332	1,300,643	1,841,388	1,711,524
Revenue	ISK bn	40.3	41.4	44.0	46.3
Full-time employee	#	458	495	509	541
Premises	thousand m^3	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
There of cold water	-	26,914,000	27,803,000	27,129,000	28,348,000
There of hot water from geothermal power plants	-	38,042,000	35,893,000	36,993,000	39,269,000
There of hot water from low temperature fields	-	48,957,000	48,455,000	49,834,000	52,931,000
Total production of energy	kWh	8,251,692,500	8,294,859,200	8,492,211,000	8,844,911,100
There of electricity production	-	3,249,250,000	3,411,110,000	3,473,297,000	3,506,531,000
There of hot water from geothermal power plants	-	2,187,415,000	2,078,204,700	2,162,994,000	2,273,675,100
There of hot water from low temperature fields	-	2,815,027,500	2,805,544,500	2,855,920,000	3,064,705,000
Electrical guarantees of origin (GoOs)[4,6]	kWh	2,984,168,000	2,468,524,000	2,457,897,000	2,005,959,000
Own cars and rented vehicles	#cars	169	177	192	191
There of electricity	-	12	21	23	29
There of plug-in hybrid	-	2	2	4	6
There of hybrid	-	19	19	13	9
There of methane	-	17	19	25	25
There of hydrogen	-	0	0	0	5
BREAKDOWN OF DATA					
Scope 1					
Scope 1, total direct emissions	t CO_2eq	52,102	43,902	40,386	43,509
Emissions from production	t CO_2eq	51,562	43,339	39,834	43,001
Emissions from fuel consumption	t CO_2eq	540	564	552	508
Fuel consumption of automobiles	litres	212,686	221,614	215,846	200,174
There of methane	m^3	8,968	12,282	18,934	17,348
There of petrol	litres	26,635	22,686	16,192	13,485
There of diesel	litres	177,083	186,646	180,720	169,341
Scope 2					
Scope 2, indirect emissions (market-based)[2]	t CO_2eq	18,794	0	0	0
Scope 3					
Scope 3, total emissions	t CO_2eq	1,113	1,110	1,159	1,077
There of emissions from waste	-	286	297	385	347
There of emissions due to employee's air travel	-	70	64	69	74
There of emissions due to employee's commuting to and from work[7]	-	106	110	108	121
There of constructions and maintenance		651	639	597	536
Mitigation projects[8]					
CO_2 sequestration by land restoration	t CO_2eq	-4,768	-4,815	-4,874	-5,387
There of land reclamation	-	-1,202	-1,249	-1,268	-1,273
There of forestry	-	-3,626	-3,626	-3,626	-3,626
There of reclamation of wetlands	-	60	60	20	20
There of wetland reclamation via Votlendissjódur fund by offsetting GHG emission from car fleet	-	0	0	0	-500

[1]*Scope 1 or direct emissions from the Reykjavik Energy Group's operations. The emissions are from the geothermal power plants of ON Power, Reykjavik Energy'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 Reykjavik Energy Group 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 Reykjavik Energy Group in 2016 and 2017, but not for Veitur Utilities, Reykjavik Energy 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/*

[5]*Electrical Guarantees of origin (GoOs) in Iceland for 2018 will be issued in the first half of 2019 and therefore the same values are used for 2017 and 2018.*

[6]*European Energy Certificate System – Guarantee of Origin.*

[7]*Based on 223 working days per year, and that employee's passenger cars emit on average 127 g CO_2/km in 2018 (down from 128 gr CO_2/km in earlier years.*

[8]*Land reclamation: Sequestration of 2.75 t CO_2e per hectare per year. Forestry: Sequestration of 4.4 t CO_2e per hectare per year and 2,000 trees per hectare. Reclaimed wetlands: As a result of reclaiming wetlands emissions is reduced by 20 t CO_2e per hectare per year.*