

# Environmental data – Reykjavik Energy 2015-2020

The following table provides an overview of greenhouse gas emissions (GHG), Scope 1, 2 and 3, of Reykjavik Energy in 2015 to 2020, and other information like energy utilization, waste and other KPIs

KEY PERFORMANCE INDICATOR	UNIT	2015	2016	2017	2018	2019	2020
<b>Greenhouse gas emissions</b>							
Scope 1 <sup>1</sup>	tCO <sub>2</sub> eq	46,100	44,050	41,000	43,450	47,450	49,250
Scope 2 (market-based) <sup>2</sup>	-	18,800	0	0	0	0	0
Scope 3 <sup>3</sup>	-	1,500	1,400	1,700	2,000	1,300	1,300
<b>CARBON FOOTPRINT</b>	<b>tCO<sub>2</sub>eq</b>	<b>67,100</b>	<b>45,450</b>	<b>42,700</b>	<b>45,450</b>	<b>48,750</b>	<b>50,550</b>
Mitigation and Offsetting; land reclamation & UN voluntary cancelling of CERs	tCO <sub>2</sub> eq	-6,500	-6,500	-6,500	-7,000	-7,750	-7,800
<b>Net emissions</b>	<b>tCO<sub>2</sub>eq</b>	<b>60,600</b>	<b>38,950</b>	<b>36,200</b>	<b>38,450</b>	<b>41,000</b>	<b>42,750</b>
<b>Carbon intensity</b>							
Carbon intensity per unit of revenue	tCO <sub>2</sub> eq/ISK bn	1,665	1,098	970	982	1,046	1,040
Carbon intensity per unit of premises	tCO <sub>2</sub> eq/thous.m <sup>3</sup>	86	58	55	58	63	65
Carbon intensity per employee	gCO <sub>2</sub> e/employee	137	87	78	78	76	79
Carbon intensity per unit of produced electricity	gCO <sub>2</sub> eq/kWh	10.4	8.9	8.1	7.9	8.0	8.3
Carbon intensity per unit of distributed electricity	-	1.0	1.0	1.0	1.2	0.8	0.3
<b>Total carbon intensity per unit of produced electricity and distributed electricity</b>	<b>gCO<sub>2</sub>eq/kWh</b>	<b>11.4</b>	<b>9.9</b>	<b>9.1</b>	<b>9.1</b>	<b>8.8</b>	<b>8.6</b>
Weighted average of carbon intensity for hot water (Veitur Utilities)	gCO <sub>2</sub> eq/kWh	4.5	3.8	3.5	3.4	3.4	3.9
Resulting pollutants of the electricity system (Indexes from Orkustofnun) <sup>4,5</sup>	-	157.7	460.3	477.1	443.1	376.4	376.4
<b>Energy use</b>							
Total energy consumption	kWh	355,719,140	356,365,730	387,841,270	370,274,830	369,739,270	387,756,920
There of fossil fuel	kWh	2,594,940	2,704,130	2,633,370	2,441,830	2,505,270	2,605,920
Vehicle fleet	liters	212,700	221,650	215,850	200,150	205,350	213,600
There of electricity	kWh	310,743,000	319,432,000	332,416,800	327,684,000	329,822,000	352,491,000
There of hot water	-	42,381,200	34,229,600	52,791,100	40,149,000	37,412,000	32,660,000
Percentage of renewable energy	%	99%	99%	99%	99%	99%	99%
Electrical Guaranties of origin (GoOs) own use	MWh	119,153	0	0	0	0	0
There of ON Power (cancelled GoOs)	-	0	0	0	0	0	0
There of Reykjavik Energy 's waterworks and wastewater	-	18,598	0	0	0	0	0
There of Veitur Utilities	-	56,928	0	0	0	0	0
There of Reykjavik Fibre Networks	-	835	0	0	0	0	0
There of losses in distribution system (DSOs)	-	42,792	0	0	0	0	0
<b>Hot and cold water</b>							
Total hot and cold-water consumption	m <sup>3</sup>	38,853,400	36,650,700	41,479,650	45,375,600	72,342,600	83,721,600
There of cold water	-	38,116,350	36,059,500	40,569,450	44,683,350	71,696,450	83,157,600
There of hot water	-	737,050	591,200	910,200	692,250	646,150	564,000
<b>Waste</b>							
Total waste generated annually	kg	1,025,550	1,412,750	1,777,950	1,660,550	1,585,000	2,029,030
Worksite waste	-	939,900	1,336,000	1,665,750	1,584,250	1,487,100	1,965,360
Office waste	-	50,450	44,650	62,000	42,900	50,000	24,700
Organic waste	-	26,100	20,200	25,800	27,000	37,700	23,700
Hazardous waste	-	9,100	11,900	24,400	6,400	10,200	15,270
Categorized waste	kg	951,150	1,301,850	1,640,050	1,515,600	1,450,800	1,915,080
Uncategorized / waste	k-	74,400	111,000	138,000	145,000	134,200	113,950
Ratio of categorized waste	%	93%	92%	92%	91%	91%	94%
There of waste for landfill diversion	kg	812,400	1,139,000	1,473,000	1,320,000	1,340,900	1,749,932
There of recycled waste	k-	204,050	261,850	280,550	334,200	244,100	279,098
Ratio of recycled waste	%	19.9%	18.5%	15.8%	20.1%	15.4%	13.8%
Ratio of hazardous waste	-	0.9%	0.8%	1.4%	0.4%	0.6%	0.8%
Ratio of waste for landfill diversion	-	79.2%	80.6%	82.8%	79.5%	84.6%	86.2%
<b>Office paper consumption</b>							
Total paper consumption	#sheets	588,200	631,400	457,200	425,650	365,050	161,500

KEY PERFORMANCE INDICATOR	UNIT	2015	2016	2017	2018	2019	2020
There of colour printing	-	-	-	268,750	270,700	245,150	100,400
There of black/white printing	-	-	-	188,450	154,950	119,900	61,100
Total paper consumption (bills) <sup>6</sup>	#sheets	998,250	717,700	614,900	564,900	512,950	426,100
Envelopes (bills)	#envelopes	512,450	362,750	305,550	270,950	252,100	345,200
<b>More information from operations</b>							
Fuel carbon tax paid annually	ISK	1,202,513	1,300,745	1,841,265	1,711,260	1,664,303	1,651,928
Revenue	ISK bn	40,3	41,4	44,0	46,3	46,6	48,6
Full-time employee	#	458	495	509	557	602	639
Premises	thousand m <sup>3</sup>	780	780	780	780	780	780
There of space with LED	%	-	12%	23%	30%		33%
Total production of water	m <sup>3</sup>	113,913,000	112,151,000	113,956,000	120,548,000	121,266,000	127,467,000
There of cold water	-	26,914,000	27,803,000	27,129,000	28,348,000	29,313,000	26,389,000
There of hot water from geoth, power plants	-	38,042,000	35,893,000	36,993,000	39,269,000	39,100,000	47,452,000
There of hot water from low temp. fields	-	48,957,000	48,455,000	49,834,000	52,931,000	52,853,000	53,626,000
Total production of energy	TWh	8.3	8.3	9.0	8.9	8.8	9.4
There of electricity production	-	3.3	3.4	3.5	3.5	3.5	3.6
There of hot water from geoth, power plants	-	2.2	2.1	2.6	2.3	2.2	2.7
There of hot water from low temp. fields	-	2.8	2.8	2.9	3.1	3.1	3.1
Electrical guarantees of origin (GoOs) <sup>7</sup>	MWh	3,004,820	3,152,754	3,214,757	3,202,411	3,276,960	3,312,447
Own cars and rented vehicles	#cars	169	177	192	191	218	191
There of electricity	-	12	21	23	29	40	45
There of plug-in hybrid	-	2	2	4	6	9	9
There of hybrid	-	19	19	13	9	9	8
There of methane	-	17	19	25	25	28	25
There of hydrogen	-	0	0	0	5	6	5

## BREAKDOWN OF DATA

### Scope 1

Scope 1, total direct emissions <sup>1</sup>	tCO <sub>2</sub> eq	46,800	44,050	41,000	43,450	47,450	49,250
Emissions from production	-	46,300	43,500	40,500	43,000	47,000	48,800
Emissions from fuel consumption	-	500	550	500	450	450	450
Fuel consumption of automobiles	liters	212,700	221,650	217,850	200,000	211,050	213,600
There of methane	m <sup>3</sup>	8,950	12,300	19,350	17,350	33,500	38,050
There of petrol	liters	26,650	22,700	16,200	13,500	10,500	5,850
There of diesel	-	177,100	186,650	182,250	169,350	167,050	169,700

### Scope 2

Scope 2, indirect emissions (marked-based) <sup>2</sup>	tCO <sub>2</sub> eq	18,794	0	0	0	0	0
---	---------------------	--------	---	---	---	---	---

### Scope 3

<b>Scope 3, total emissions<sup>3</sup></b>	tCO <sub>2</sub> eq	1,065	1,120	1,315	1,540	1,485	1,210
There of emissions from waste	-	285	300	385	350	325	400
There of emissions due to employee's air travel	-	70	60	70	70	100	20
There of emissions due to commuting <sup>8</sup>	-	110	110	110	120	110	40
There of constructions and maintenance	-	600	650	750	1,000	950	750

### Mitigation projects<sup>9</sup>

CO <sub>2</sub> sequestration by land restoration	tCO <sub>2</sub> eq	-6,350	-6,400	-6,500	-7,000	-7,750	-7,800
There of land reclamation	-	-1,200	-1,250	-1,300	-1,300	-1,300	-1,300
There of forestry	-	-5,200	-5,200	-5,200	-5,200	-5,200	-5,250
There of reclamation of wetlands	-	50	50	0	0	0	0
There of offsetting by wetland Votlendis-sjóður Fund and UN Cancelling CERs	-	0	0	0	-500	-1,250	-1,250

<sup>1</sup> Scope 1 or direct emissions from Reykjavik Energy (RE) operations is from the production of electricity and hot water at ON Power's geothermal power plants, emissions for Veitur Utilities' and from the car fleet of the RE. In 2020, emissions from geothermal power plants increased due to increased energy production at the Hellisheidi power plant and the high concentration of carbon dioxide in a powerful borehole. in Hverahlíð which was connected to the power plant

<sup>2</sup> Scope 2, indirect emissions from purchased electricity and heating for own use, Scope 2 are zero. The reason is that RE is producing 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 - 2020 but not for Veitur, the mother company and Reykjavik Fibre Networks in 2015.

<sup>3</sup> Scope 3, indirect emissions from waste as well as emission from employees commuting and their air travel.

<sup>4</sup> Electrical Guaranties of origin (GoOs) in Iceland on Orkustofnun's web, <https://orkustofnun.is/yfirflokkur/raforkunotandinn/uppruni-raforku/aforku>.

<sup>5</sup> GoOs for 2020 will be published in the first half of 2021 and the same number is therefore used in 2020 and 2019.

<sup>6</sup> ON Power and Veitur are no longer on a joint claim, therefore there is an increase in postal items and envelopes between the years 2019 and 2020.

<sup>7</sup> GoOs are issued for net production of the ON Power's 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.

<sup>8</sup> Based on 223 working days per year, and that employee's passenger cars emit on average 127 g CO<sub>2</sub>/km (129 gr CO<sub>2</sub>/km 2019),

<sup>9</sup> Landreclamation: Sequestration of 2,75tCO<sub>2</sub>e per ha/yr, Forestry: 6,3t CO<sub>2</sub>eq per ha/yr and 2,000 trees/yr. As a result of reclaiming, wetlands emissions is reduced by 20 tCO<sub>2</sub>eq/ha/yr.