

# APPENDIX 5<sup>2</sup> – ENVIRONMENTAL PERFORMANCE

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
<i>Air Emissions</i>								
Total air emissions (including key emissions) – Steel production	thousand tonnes	396.22	381.57	370.69	-10.88	-2.9	Total Air Emissions – Emissions excluding Coal emissions and CH <sub>4</sub>	
Total air emissions (including key emissions) – Coal	thousand tonnes	403.19	429.69	409.65	-20.05	-4.7	Total Coal Air Emissions — including CH <sub>4</sub> (98% of total coal emissions)	
Key Air emissions	thousand tonnes	128.13	121.30	110.79	-10.51	-8.7	Key Air emissions: Steel and Coal	
• SO <sub>x</sub>	thousand tonnes	45.38	45.11	41.62	-3.49	-7.7	Sulfur dioxide (SO <sub>2</sub> )	
• NO <sub>x</sub>	thousand tonnes	28.85	25.52	25.16	-0.36	-1.4	Sum of Nitric oxides (NO <sub>x</sub> ) as nitrogen dioxide (NO <sub>2</sub> )	
• Dust	thousand tonnes	52.44	49.25	42.58	-6.67	-13.5	Sum of PM10 and PM25	
• VOC	thousand tonnes	1.45	1.42	1.44	0.02	1.4	Volatile organic compounds	
CO	thousand tonnes	272.91	265.53	265.93	0.40	0.2	Carbon Monoxide (CO)	
CH <sub>4</sub>	thousand tonnes	397.78	425.16	404.24	-20.92	-4.9	CH <sub>4</sub> disclosed in greenhouse gas emissions (in million tonnes CO <sub>2</sub> e)	
Other	thousand tonnes	3.09	1.49	1.55	0.06	4.0	excl. CH <sub>4</sub> , see “Greenhouse Gases”	
<b>Greenhouse Gases</b>								
GHG Scope 1	Million tonnes CO <sub>2</sub> e	40.76 <sup>3</sup>	41.21 <sup>4</sup>	40.17	-1.04	-2.5	Direct GHG emissions; sum of CO <sub>2</sub> equivalent of CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, PFC, HFC, SF <sub>6</sub> and NF <sub>3</sub>	Direct GHG emissions are emissions from sources that are owned or controlled by EVRAZ

2. Due to mathematical rounding, some totals or percentages may slightly differ from the values of the separate figures

3. Data for 2019 Scope 2 presented in the current Report differs from the data for 2019 Scope 2 presented in the Sustainability Report 2020 due to the following reasons: improved data quality (elimination of double counting for coke stripping at NTMK, inclusion of methane emissions from surface coal mining: +0.26 MtCO<sub>2</sub>e), GWP change to potentials from IPCC 5th Assessment Report (+1.43 MtCO<sub>2</sub>e).

4. Data for 2020 Scope 2 presented in the current Report differs from the data for 2020 Scope 2 presented in the Sustainability Report 2020 due to the following reasons: improved data quality (exclusion of double counting for coke stripping at NTMK, inclusion of methane emissions from surface coal mining +0.28 MtCO<sub>2</sub>e), change in GWP to potentials from the IPCC 5th Assessment Report (+1.45 MtCO<sub>2</sub>e).

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
CO <sub>2</sub>	Million tonnes CO <sub>2</sub> e	28.22	28.06	27.55	-0.51	-1.8	Carbon dioxide (CO <sub>2</sub> )	Direct CO <sub>2</sub> emissions from operations were calculated using the carbon balance method for carbon flows within production facilities, including fuel use. Emissions of other GHGs were calculated based on measured volumes, inventory changes or IPCC 2006 factors and models (including for post-mining coal methane emissions) where direct measurement data were not available.
CH <sub>4</sub>	Million tonnes CO <sub>2</sub> e	12.48	13.09	12.57	-0.52	-4.0	CO <sub>2</sub> equivalent of methane (CH <sub>4</sub> ) emission	
N <sub>2</sub> O	Million tonnes CO <sub>2</sub> e	0.06	0.05	0.06	0.01	6.1	CO <sub>2</sub> equivalent of nitrous oxide (N <sub>2</sub> O) emission	
PFC and HFC	Million tonnes CO <sub>2</sub> e	0.00002	0.00012	0.00003	0.00	-77.1	CO <sub>2</sub> equivalent of hydrofluorocarbons & perfluorocarbons emissions	
SF <sub>6</sub>	Million tonnes CO <sub>2</sub> e	-	-	-	-	-	CO <sub>2</sub> equivalent of sulphur hexafluoride (SF <sub>6</sub> ) emissions	
NF <sub>3</sub>	Million tonnes CO <sub>2</sub> e	-	-	-	-	-	CO <sub>2</sub> equivalent of nitrogen trifluoride (NF <sub>3</sub> ) emissions	
GHG Scope 2	Million tonnes CO <sub>2</sub> e	2.38 <sup>1</sup>	2.27	1.96	-0.31	-13.7	Indirect GHG emissions from consumption of purchased electricity, heat or steam	
<b>Total GHG</b>	<b>Million tonnes CO<sub>2</sub>e</b>	<b>43.14</b>	<b>43.48</b>	<b>42.13</b>	<b>-1.35</b>	<b>-3.1</b>	<b>Calculation perimeter includes the following subsidiaries:</b>	
GHG Steel Segment	Million tonnes CO <sub>2</sub> e	28.22	28.2	27.11	-1.09	-3.9	EVRAZ NTMK, EVRAZ KGOK, EVRAZ ZSMK, Evrazruda, EVRAZ Vanady Tula, EVRAZ Caspian Steel, EVRAZ Nikom	
Scope 1	Million tonnes CO <sub>2</sub> e	26.84	26.86	26.14	-0.72	-2.7		
Scope 2	Million tonnes CO <sub>2</sub> e	1.38	1.34	0.97	-0.37	-27.2		

1. Data for total fresh water intake for production needs in the current Report differs from the data in the Sustainability Report 2020 due to the following reasons: the volume of fresh water for enterprise needs mistakenly included recycled water, which is used by Kuznetskaya CPP for production needs, and the volumes of recycled water were excluded

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
<b>GHG Steel NA Segment</b>	Million tonnes CO <sub>2</sub> e	1.42	1.22	1.34	0.12	10.5	EVRAZ Calgary, EVRAZ Camrose, EVRAZ Portland, EVRAZ Pueblo, EVRAZ Red Deer, EVRAZ Regina,	
Scope 1	Million tonnes CO <sub>2</sub> e	0.77	0.63	0.72	0.09	13.7		
Scope 2	Million tonnes CO <sub>2</sub> e	0.65	0.59	0.63	0.04	7.0		
<b>GHG Coal Segment</b>	Million tonnes CO <sub>2</sub> e	12.61	14.07	13.67	-0.40	-2.8	Raspadsкая Coal Company, Mezhegeyugol and Yuzhkuzbassugol	
Scope 1	Million tonnes CO <sub>2</sub> e	13.15	13.72	13.32	-0.40	-2.9		
Scope 2	Million tonnes CO <sub>2</sub> e	0.35	0.35	0.36	0.01	3.0		
<b>GHG per t of steel cast</b>	tCO <sub>2</sub> e per tonne of steel cast	1.94	1.95	1.90	-0.05	-2.5		
<b>GHG per net revenue</b>	kg CO <sub>2</sub> e / US\$	3.62	4.46	2.98	-1.48	-33.2		
<b>GHG Steel Segment</b>	kg CO <sub>2</sub> e / US\$	3.47	4.05	2.66	-1.39	-34.2		
<b>GHG Steel NA Segment</b>	kg CO <sub>2</sub> e / US\$	0.57	0.68	0.58	-0.10	-15.4		
<b>GHG Coal Segment</b>	kg CO <sub>2</sub> e / US\$	6.68	9.44	5.89	-3.55	-37.6		
<i>Water Management</i>								
<b>Total fresh water intake for production needs<sup>1</sup></b>	million m <sup>3</sup>	201.7	202.79	196.22	-6.57	-3.2		Excluded the volumes of recycled water that are used by the Kuznetsky concentrator for production purposes.
surface water sources	million m <sup>3</sup>	175.03	176.60	170.18	-6.42	-3.6		
ground water	million m <sup>3</sup>	9.20	8.99	8.86	-0.13	-1.4		
seawater	million m <sup>3</sup>	-	-	-	-	-		
public network	million m <sup>3</sup>	16.19	15.54	15.47	-0.07	-0.4		
other sources	million m <sup>3</sup>	1.28	1.65	1.70	0.05	3.1		
<b>Mine and quarry water usage for production needs</b>	million m <sup>3</sup>	21.22	24.29	20.57	-3.72	-15.3		
mine water	million m <sup>3</sup>	13.70	15.45	14.97	-0.48	-3.1		
quarry water	million m <sup>3</sup>	7.52	8.83	5.60	-3.23	-36.6		

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
<b>Steel segment: fresh water intake for production needs</b>	million m <sup>3</sup>	164.66	162.22	155.04	-718	-4.4	EVRAZ NTMK, EVRAZ ZSMK, EVRAZ Vanady Tula, EVRAZ Caspian Steel, EVRAZ Nikom, EVRAZ Inc. NA (including EVRAZ Portland, EVRAZ Pueblo), EVRAZ Inc. NA Canada (including EVRAZ Camrose, EVRAZ Red Deer, EVRAZ Calgary, EVRAZ Regina)	
surface water sources	mlnm <sup>3</sup>	148.05	145.72	138.59	-713	-4.9		
ground water	mlnm <sup>3</sup>	4.74	4.83	4.83	-0.01	-0.1		
seawater	mlnm <sup>3</sup>	-	-	-	-	-		
public network	mlnm <sup>3</sup>	10.78	10.23	10.34	0.11	1.1		
other sources	mlnm <sup>3</sup>	1.09	1.44	1.28	-0.16	-11.0		
<b>Iron Ore: fresh water intake for production needs</b>	mlnm <sup>3</sup>	32.13	36.02	36.61	0.59	1.6	EVRAZ KGOK, Evrzruda	
surface water sources	mlnm <sup>3</sup>	26.86	30.80	31.46	0.66	2.2		
ground water	mlnm <sup>3</sup>	0.54	0.55	0.56	0.01	1.1		
seawater	mlnm <sup>3</sup>	-	-	-	-	-		
public network	mlnm <sup>3</sup>	4.72	4.65	4.42	-0.23	-5.0		
other sources	mlnm <sup>3</sup>	0.01	0.01	0.17	0.16	1,334.1		
<b>Mine and quarry water usage for production needs</b>		8.84	9.91	6.70	-3.21	-32.4		
mine water	mlnm <sup>3</sup>	1.88	1.64	1.64	0.00	-0.1		
quarry water	mlnm <sup>3</sup>	6.95	8.27	5.06	-3.21	-38.9		
<b>Coal segment: fresh water intake for production needs</b>	mlnm <sup>3</sup>	4.9	4.55	4.57	0.02	0.5	Raspadskaya Coal Company, Mezhegeyugol	
surface water sources	mlnm <sup>3</sup>	0.13	0.09	0.13	0.04	51.3		
ground water	mlnm <sup>3</sup>	3.91	3.60	3.47	-0.13	-3.5		
seawater	mlnm <sup>3</sup>	-	-	-	-	-		

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
public network	mlnm <sup>3</sup>	0.69	0.66	0.71	0.05	8.0		
other sources	mlnm <sup>3</sup>	0.17	0.2	0.26	0.05	26.5		
Mine and quarry water usage for production needs		12.39	14.38	13.87	-0.51	-3.5		
mine water	mlnm <sup>3</sup>	11.82	13.81	13.33	-0.48	-3.5		
quarry water	mlnm <sup>3</sup>	0.57	0.57	0.54	-0.03	-3.9		
Fresh water withdrawal intensity	m <sup>3</sup> / tonne of steel cast	11.92	11.90	11.43	-0.47	-4.0		
Fresh water withdrawal intensity <sup>1</sup>	m <sup>3</sup> / US\$ thousand revenue	16.94	20.79	13.86	-6.90	-32.2		
Water recycled for use in own operations	%	93.3	93.3	93.6	0.30	0.3 n.n.		
Total water discharge into water bodies	mln m <sup>3</sup>	125.91	125.26	121.49	-3.77	-3.0		
Steel segment	mln m <sup>3</sup>	68.90	68.58	63.48	-5.10	-7.4	EVRAZ NTMK, EVRAZ ZSMK, EVRAZ Vanady Tula, EVRAZ Caspian Steel, EVRAZ Nikom, EVRAZ Inc. NA (including EVRAZ Portland, EVRAZ Pueblo), EVRAZ Inc. NA Canada (including EVRAZ Camrose, EVRAZ Red Deer, EVRAZ Calgary, EVRAZ Regina)	
Iron Ore	mln m <sup>3</sup>	12.86	12.47	10.84	-1.63	-13.1	EVRAZ KGOK, Evrazruda	
Coal segment	mln m <sup>3</sup>	44.15	44.21	47.18	2.97	6.7	Raspadskaya Coal Company, Mezhegeyugol	

1. Data for fresh water withdrawal intensity in the current Report differs from the data in the Sustainability Report 2020 due to the following reasons: because of changes in fresh water withdrawal data, the "Fresh water withdrawal intensity" indicator has also changed and the "US\$ revenue" indicator was used for the correction of calculations.

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
<i>Waste &amp; By-product Management</i>								
Non-mining waste & by-product generation	k.ton	8,445.4	8,651.4	8,561.4	-90.00	-1.0		
Metallurgical by-product generation	k.ton	6,829.6	6,406.9	6,262.5	-144.40	-2.3		
General waste	k.ton	1,615.7	2,244.5	2,298.9	54.40	2.4		
non-hazardous waste generation	k.ton	1,547.4	2,188	2,172.7	-15.30	-0.7		
hazardous waste generation	k.ton	68.3	56.6	126.2	69.60	123.1		
Non-mining waste & by-product recycled	k.ton	8,881.2	8,886.1	8,987.6	101.50	1.1		
Non-mining waste & by-product non-recycled	k.ton	661.6	751.0	837.9	86.9	11.6		
Non-mining waste recycling or re-use rate	%	105.2	102.7	105.0	2.30	2.3 n.n.		
Mining waste	k.ton	198,827.7	135,625.3	187,131.0	51,505.70	38.0		
Mining waste used	k.ton	75,467.9	38,634.1	57,828.4	19,194.30	49.7		
Mining waste recycling or re-use rate	%	38.0	28.5	30.9	2.40	2.4 n.n.		
<i>Environmental Management</i>								
Environmental commitments	\$M	198.6	226.2	197.5	-28.70	-12.7	A documented and approved by regulator liability to perform corrective actions to comply with environmental requirements applicable to a specific facility	Exchange rate as of December 31 of the report year.

INDICATOR	UNIT	2019	2020	2021	2021 VS. 2020		DEFINITION	COMMENTS
					Δ	%		
Environmental Liabilities (Site Restoration Provisions)	\$M	342	296	200	-96.00	-32.4	Asset Retirement Obligation - is a legal obligation associated with the retirement of a tangible long-lived asset (i.e. remediation work such as land rehabilitation, removing underground fuel storage tanks, cleanup, etc.).	The amount of Environmental Liabilities is calculated using discounted amounts of future cash flows and disclosed in the Financial Statements as Site restoration provision. Exchange rate as of December 31 of the report year.
Environmental Levies and Fines for Non-compliance	\$M	5.0	5.8'	3.1	-2.70	-47.3		
Cost of environmental compliance	\$M	30.3	32.9	30.5	-2.40	-7.1		
Investments to improve environmental performance	\$M	28.8	56.9	71.2	14.30	25.0		
Material environmental incidents	cases	-	-	-	-	-		
Public complaints	cases	31	11	10	-1.00	-9.1		
Compliance with REACH requirements	cases of non-compliance	-	-	-	-	-		

1. In the current Report adjustment of environmental non-compliance fee in 2020 was made based on the results of reconciliation with Rosprirodnadzor.