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2024  
**POSCO**  
**ESG**  
FACTBOOK

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Path to  
a sustainable future



# Factbook

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# Factbook

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## ESG Factbook

### Scope of Reporting

Indicators are applied to the following worksites, by reporting year:

- **2022 : POSCO, 3 integrated steel mills**

· POSCO, PT. KRAKATAU POSCO, POSCO YAMATO VINA, and POSCO Zhangjiagang Stainless

- **2023 : POSCO, 3 integrated steel mills, 2 re-rolling mills**

· POSCO, PT. KRAKATAU POSCO, POSCO YAMATO VINA, and POSCO Zhangjiagang Stainless

· POSCO-Maharashtra and POSCO Thainox (newly added)

- **2024 : POSCO, 3 integrated steel mills, 4 re-rolling mills, 4 processing centers**

· POSCO, PT. KRAKATAU POSCO, POSCO YAMATO VINA, POSCO Zhangjiagang Stainless, POSCO-Maharashtra, and POSCO Thainox

· POSCO-Mexico, POSCO-Vietnam, POSCO-CSPC, POSCO-CFPC, POSCO-MPPC, and POSCO India PC (newly added)

# Domestic Worksites

## Financial and Production Information

### Financial and Production Information

Financial and Production Information	Unit	2022	2023	2024
<b>Sales <sup>1)</sup></b>	KRW million	35,152,358	38,971,567	37,556,523
<b>Crude steel production</b>	1,000 tons	34,219	35,682	35,048
Blast furnace/Converter	1,000 tons	33,255	34,625	33,893
Percentage from blast furnace/converter	%	97.2	97.0	96.7
Electric Arc Furnace	1,000 tons	964	1,057	1,154
Percentage from electric arc furnace	%	2.8	3.0	3.3
<b>Materials used</b>				
Iron ore	1,000 tons	49,091	50,339	49,369
Metallurgical coal	1,000 tons	22,671	23,238	22,566
Limestone	1,000 tons	5,531	5,517	5,686

1) Covers the 10-month sales period from March to December 2022, following the corporate spin-off from POSCO Holdings on March 1, 2022

# E(Environmental)

## GHG Emissions

GHG Emissions	Unit	2022	2023	2024
<b>Direct/Indirect GHG emissions (Scope 1&amp;2) <sup>1)</sup></b>	tCO <sub>2</sub> e	70,185,623	71,971,900	71,065,170
Direct emissions (Scope 1)	tCO <sub>2</sub> e	68,305,993	70,588,012	69,665,353
Indirect emissions (Scope 2)	tCO <sub>2</sub> e	1,879,630	1,383,895	1,399,825
<b>GHG emissions intensity per crude steel production, Scope 1&amp;2</b>	tCO <sub>2</sub> e/ton	2.05	2.02	2.03
<b>Other indirect GHG emissions (Scope 3) <sup>2)</sup></b>	tCO <sub>2</sub> e	7,107,502	7,419,787	7,216,788
<b>Upstream</b>	tCO <sub>2</sub> e	4,570,474	5,229,508	5,054,941
Purchase of raw materials and services <sup>1)</sup>	tCO <sub>2</sub> e	2,583,823	2,764,127	2,170,214
Investment of capital goods <sup>2)</sup>	tCO <sub>2</sub> e	857	563	939
Fuel and energy related activities(not included in Scope 1&2) <sup>3)</sup>	tCO <sub>2</sub> e	298,540	334,942	735,200
Transportation of purchased raw materials <sup>4)</sup>	tCO <sub>2</sub> e	1,537,143	1,926,052	1,949,126
Waste generated in operations <sup>5)</sup>	tCO <sub>2</sub> e	141,520	195,608	189,643
Employees' business travels	tCO <sub>2</sub> e	346	486	1,895
Employee commutes	tCO <sub>2</sub> e	8,245	7,730	7,924
<b>Downstream</b>	tCO <sub>2</sub> e	2,537,028	2,190,279	2,161,846
Transportation and distribution <sup>6)</sup>	tCO <sub>2</sub> e	489,786	26,936	28,695
Leased assets <sup>7)</sup>	tCO <sub>2</sub> e	1,888,240	1,974,893	1,935,128
Investments	tCO <sub>2</sub> e	159,002	188,450	198,023

1) Discrepancies in the total of direct and indirect emissions (Scope 1&2) may occur due to the truncation of decimal points from each worksite's reported emissions.

2) Boundaries for all categories: Pohang and Gwangyang Works (2022, 2023); All worksites (2024)

① Limited to purchased raw materials with the most direct impact on steel production, including iron ore, coal, and limestone, which together account for over 90% of total consumption

② Calculated based on POSCO's 2024 asset acquisitions, covering selected worksite supplies and vehicles, using the carbon footprint of products certified under the Korean Environmental Product Declaration

③ Calculated using carbon footprint factors from the environmental label evaluation factors published by the Korea Environmental Industry & Technology Institute (KEITI) for energy consumed at the worksites

④ ⑥ Includes transportation emissions for certain sold products under upstream transportation, depending on delivery terms (i.e., whether POSCO bears the freight cost)

⑤ Refers to waste generated at worksites that was consigned for off-site treatment, based on data from the Korean government's waste management platform, Allbaro System

⑦ Calculated based on the Scope 1 and 2 emissions of the lime calcination plant leased by POSCO FUTURE M

[GHG Emissions Verification \(Scope 1&2\) ↓](#)

[GHG Emissions Verification \(Scope 3\) ↓](#)

## Energy

Energy	Unit	2022	2023	2024
<b>Energy consumption <sup>1)</sup></b>	GJ	333,781,599	354,002,733	359,242,804
<b>Energy directly consumed</b>	GJ	319,078,303	342,940,165	348,022,726
Natural gas	GJ	30,750,384	45,697,279	60,987,933
By-product gas <sup>2)</sup>	GJ	288,103,292	294,489,643	284,088,474
Kerosene	GJ	-	2,643	2,050
Gasoline	GJ	6,249	5,569	6,740
Diesel fuel	GJ	218,348	189,682	190,644
Liquefied petroleum gas(LPG)	GJ	30	0	0
Propane	GJ	-	5,377	5,452
Other fuels <sup>2)</sup>	GJ	-	2,549,972	2,741,433
<b>Energy indirectly consumed <sup>3)</sup></b>	GJ	14,703,073	11,062,333	11,219,131
Electricity <sup>3)</sup>	GJ	14,618,973	10,837,975	10,963,428
Steam	GJ	84,100	224,358	255,703
<b>Renewable energy consumed <sup>3)</sup></b>	GJ	223	235	946
<b>Energy intensity per crude steel production</b>	GJ/ton	9.80	9.92	10.25

1) Refers to energy consumption, defined as the sum of K-ETS energy consumption and renewable energy consumption, excluding purchased renewable energy; applicable to Pohang and Gwangyang Works in 2022, and to all worksites in 2023 and 2024

2) 2023 data adjusted to correct aggregation errors

3) 2023 data revised to reflect changes in aggregation criteria; excludes purchased renewable energy; unit conversion factors applied to electricity and renewable energy

## Environmental Certification

Environmental Certification	Unit	2022	2023	2024
<b>Percentage of worksites with ISO 14001 certification</b>	%	100	100	100
Worksites requiring ISO 14001	Site	2	2	2
Certified worksites with ISO 14001	Site	2	2	2
<b>Percentage of worksites with ISO 50001 certification</b>	%	100	100	100
Worksites requiring ISO 50001	Site	2	2	2
Certified worksites with ISO 50001	Site	2	2	2

## Air

Air	Unit	2022	2023	2024
<b>Emissions of air pollutants <sup>1)</sup></b>	ton	53,451	55,042	49,340
NOx	ton	27,653	27,685	23,909
SOx	ton	23,294	23,945	22,366
Dust	ton	2,504	3,413	3,065

1) 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

## Waste

Waste	Unit	2022	2023	2024
<b>Total waste generated</b>	ton	19,116,690	19,523,970	20,203,736
Recycled	ton	18,787,157	19,242,999	19,951,274
Incinerated	ton	62,031	52,034	55,216
Landfilled	ton	267,470	228,633	197,074
Other ways	ton	32	304	171
<b>Designated waste</b>	ton	96,579	108,491	106,581
Recycled	ton	59,344	58,307	60,447
Incinerated	ton	16,546	8,691	9,383
Landfilled	ton	20,657	41,188	36,580
Other ways	ton	32	304	171
<b>General waste</b>	ton	19,020,111	19,415,479	20,097,155
Recycled <sup>1)</sup>	ton	18,727,813	19,184,692	19,890,828
Incinerated	ton	45,485	43,342	45,833
Landfilled	ton	246,813	187,445	160,494
Other ways	ton	0	0	0
<b>Waste generated intensity per crude steel production</b>	ton/ton	0.56	0.55	0.58
<b>Percentage of waste recycled</b>	%	98.3	98.6	98.8

<sup>1)</sup> 2022 and 2023 data adjusted to correct aggregation errors (by including higher-level indicators)

## Resource recycling

Resource recycling	Unit	2022	2023	2024
<b>Blast furnace slag recycled <sup>1)</sup></b>	ton	9,467,776	9,427,376	10,448,585
Granulated slag recycled	ton	8,612,812	8,141,470	9,381,494
Air-cooled slag recycled	ton	854,964	1,285,906	1,067,091

<sup>1)</sup> 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

## Water

### Water(Pohang, Gwangyang)

Water(Pohang, Gwangyang)	Unit	2022	2023	2024
<b>Total water withdrawal</b>	ton	145,115,608	153,645,403	156,026,930
Municipal water	ton	0	0	0
Surface water	ton	108,957,548	115,497,855	119,307,357
Groundwater	ton	3,451,420	4,154,290	4,556,880
Desalinated water	ton	3,608,003	5,044,618	2,992,678
Reused municipal wastewater	ton	29,098,637	28,948,640	29,170,015
Total water withdrawal in regions with 'High' baseline water stress <sup>1)</sup>	ton	0	84,054,014	87,319,386
Total water withdrawal in regions with 'Extremely High' baseline water stress	ton	0	0	0
<b>Total water withdrawal intensity per crude steel production</b>	ton/ton	4.20	4.31	4.45
<b>Total water consumed</b>	ton	73,375,512	72,416,383	71,802,801
Total water consumed in regions with 'High' baseline water stress <sup>2)</sup>	ton	0	38,181,117	37,013,437
Total water consumed in regions with 'Extremely High' baseline water stress	ton	0	0	0
<b>Total wastewater discharge</b>	ton	71,740,096	81,229,020	84,224,129
<b>Total recycled/reused water</b>	ton	44,625,210	40,390,660	37,206,622
Percentage of total recycled/reused water	%	23.5	20.8	19.3
<b>Water pollutant discharged <sup>3)</sup></b>				
BOD	ton	191.114	203.841	193.728
T-N <sup>4)</sup>	ton	684.976	668.257	879.314
T-P	ton	3.827	2.073	5.717
SS <sup>4)</sup>	ton	134.747	134.238	160.598
TOC <sup>5)</sup>	ton	-	288.780	343.460

1) 2023 data adjusted to correct aggregation errors

2) 2023 data adjusted to reflect a change in the aggregation method

3) 2024 data subject to change based on the verification results of the Ministry of Environment (MOE)

4) 2022 and 2023 data adjusted to reflect values finalized by the MOE since the previous year's Sustainability Report disclosure

5) 2022 TOC performance excluded due to the revision of the Enforcement Decree of the Water Environment Conservation Act, which changed the organic matter measurement index from COD to TOC and required replacement of TMS measuring equipment (WEMS-standard COD discharge recorded at 580.391 tons)

## Water(Pohang)

Water(Pohang)	Unit	2022	2023	2024
<b>Total water withdrawal</b>	ton	-	69,591,389	68,707,544
Municipal water	ton	-	0	0
Surface water	ton	-	36,488,459	34,980,649
Groundwater	ton	-	4,154,290	4,556,880
Desalinated water	ton	-	0	0
Reused municipal wastewater	ton	-	28,948,640	29,170,015
Total water withdrawal in regions with 'High' baseline water stress	ton	-	0	0
Total water withdrawal in regions with 'Extremely High' baseline water stress	ton	-	0	0
<b>Total water withdrawal intensity per crude steel production</b>	ton/ton	-	4.79	5.13
<b>Total water consumed</b>	ton	-	34,235,266	34,789,364
Total water consumed in regions with 'High' baseline water stress	ton	-	0	0
Total water consumed in regions with 'Extremely High' baseline water stress	ton	-	0	0
<b>Total recycled/reused water</b>	ton	-	19,516,566	20,398,928
Percentage of total recycled/reused water	%	-	21.9	22.9

## Water(Gwangyang)

Water(Gwangyang)	Unit	2022	2023	2024
<b>Total water withdrawal</b>	ton	-	84,054,014	87,319,386
Municipal water	ton	-	0	0
Surface water	ton	-	79,009,396	84,326,708
Groundwater	ton	-	0	0
Desalinated water	ton	-	5,044,618	2,992,678
Reused municipal wastewater	ton	-	0	0
Total water withdrawal in regions with 'High' baseline water stress	ton	-	84,054,014	87,319,386
Total water withdrawal in regions with 'Extremely High' baseline water stress	ton	-	0	0
<b>Total water withdrawal intensity per crude steel production</b>	ton/ton	-	3.98	4.03
<b>Total water consumed</b>	ton	-	38,181,117	37,013,437
Total water consumed in regions with 'High' baseline water stress <sup>1)</sup>	ton	-	38,181,117	37,013,437
Total water consumed in regions with 'Extremely High' baseline water stress	ton	-	0	0
<b>Total recycled/reused water</b>	ton	-	20,874,094	16,807,694
Percentage of total recycled/reused water	%	-	19.9	16.1

1) 2023 data adjusted to reflect a change in the aggregation method

## Environmental Management

Environmental Management	Unit	2022	2023	2024
<b>Number of incidents of non-compliance with environmental laws <sup>1)</sup></b>	Case	9	8	12
<b>Percentage of eco-friendly vehicles owned <sup>2)</sup></b>	%	16.5	23.0	24.5
Number of eco-friendly vehicles owned	Unit	114	168	185
Total number of vehicles owned	Unit	690	735	754

<sup>1)</sup> 2023 data adjusted to correct aggregation errors and duplicate aggregation

<sup>2)</sup> Sum of electronic vehicles (EVs), hydrogen vehicles, and hybrid vehicles (excluding heavy equipment vehicles); 2022 and 2023 data adjusted to correct aggregation errors (including subordinated items)

# S(Social)

## Work-Related Accident

Work-Related Accident	Unit	2022	2023	2024
<b>Lost Time Injury Rate (LTIR)</b>	Person/200,000 hours	0.19	0.07	0.17
Employee LTIR	Person/200,000 hours	0.11	0.03	0.19
Contractor LTIR	Person/200,000 hours	0.25	0.10	0.14
<b>Lost Time Injury Frequency Rate (LTIFR)</b>	Person/1,000,000 hours	0.93	0.35	0.83
Employee LTIFR	Person/1,000,000 hours	0.56	0.17	0.94
Contractor LTIFR	Person/1,000,000 hours	1.26	0.50	0.72
<b>Total Recordable Injury Rate (TRIR)</b>	Person/200,000 hours	0.35	0.34	0.36
Employee TRIR	Person/200,000 hours	0.27	0.35	0.39
Contractor TRIR	Person/200,000 hours	0.41	0.32	0.33
<b>Total Recordable Injury Frequency Rate (TRIFR)</b>	Person/1,000,000 hours	1.73	1.67	1.81
Employee TRIFR	Person/1,000,000 hours	1.37	1.76	1.96
Contractor TRIFR	Person/1,000,000 hours	2.06	1.60	1.65
<b>Fatality rate per 10,000 workers</b>	‰	0.30	0.00	0.00
Employee fatality rate per 10,000 workers	‰	0.00	0.00	0.00
Contractor fatality rate per 10,000 workers	‰	0.63	0.00	0.00
<b>Employee accidents</b>				
Number of employee Lost Time Injuries (LTI)	Person	20	6	33
Number of employee Total Recordable Injuries (TRI)	Person	49	62	69
Number of employee Fatalities	Person	0	0	0
Number of employee Injuries	Person	14	4	25
Number of employee Near Misses <sup>1)</sup>	Case	6,408	5,983	4,568
<b>Contractor accidents</b>				
Number of contractor Lost Time Injuries (LTI)	Person	50	20	26
Number of contractor Total Recordable Injuries (TRI)	Person	82	64	60
Number of contractor Fatalities	Person	1	0	0
Number of contractor Injuries	Person	30	16	23
Number of contractor Near Misses <sup>1)</sup>	Case	289	276	347

<sup>1)</sup> Adjustment of 2022 and 2023 data due to differences in the timing of data retrieval

## OHSMS Certification

OHSMS Certification(Occupational Health and Safety Management System, ISO 45001 or OHSAS 18001 or KOSHA-MS)	Unit	2022	2023	2024
<b>Percentage of worksites with OHSMS certification</b>	%	100	100	100
Worksites requiring OHSMS certification	Site	2	2	2
Certified worksites with OHSMS	Site	2	2	2

## Supply Chain Management

Supply Chain Management	Unit	2022	2023	2024
<b>Percentage of suppliers evaluated (SRM evaluations)</b>	%	83.9	82.0	88.0
Number of suppliers	Count	1,408	1,380	1,321
Number of suppliers evaluated	Count	1,182	1,132	1,162

## Employee Status

Employee Status	Unit	2022	2023	2024
<b>Total number of employees</b>	Person	18,122	17,985	17,919
<b>Executive level <sup>1)</sup></b>	Person	67	67	65
<b>By gender</b>				
Male	Person	66	63	63
Female	Person	1	4	2
Percentage of female	%	1.5	6.0	3.1
<b>By age group</b>				
Under 30 years old	Person	0	0	0
30-50 years old	Person	0	0	0
Over 50 years old	Person	67	67	65
<b>By region</b>				
South Korea	Person	67	65	63
Asia (excluding South Korea)	Person	0	2	2
North America	Person	0	0	0
Latin America	Person	0	0	0
Europe	Person	0	0	0
Other regions	Person	0	0	0

<b>Employees excluding executive level <sup>1)</sup></b>	Person	18,055	17,918	17,854
<b>By gender</b>				
Male	Person	17,046	16,918	16,841
Female	Person	1,009	1,000	1,013
Percentage of female	%	5.6	5.6	5.7
<b>By age group</b>				
Under 30 years old	Person	3,035	3,241	3,139
30-50 years old	Person	7,353	7,472	7,873
Over 50 years old	Person	7,667	7,205	6,842
<b>By region</b>				
South Korea	Person	17,628	17,519	17,442
Asia (excluding South Korea)	Person	320	306	305
North America	Person	53	39	42
Latin America	Person	13	17	29
Europe	Person	35	25	26
Other regions	Person	6	12	10
<b>Managers (among employees excluding executive level) <sup>2)</sup></b>	Person	4,069	4,043	4,094
<b>By gender</b>				
Male	Person	3,998	3,972	4,013
Female	Person	71	71	81
Percentage of female	%	1.75	1.76	2.0
<b>By age group</b>				
Under 30 years old	Person	1	2	3
30-50 years old	Person	1,191	1,363	1,650
Over 50 years old	Person	2,877	2,678	2,441
<b>By region</b>				
South Korea	Person	3,887	3,864	3,906
Asia (excluding South Korea)	Person	135	138	142
North America	Person	17	15	17
Latin America	Person	10	11	13
Europe	Person	18	11	13
Other regions	Person	2	4	3

<b>Permanent employees</b>	Person	17,107	16,926	16,784
<b>By gender</b>				
Male	Person	16,147	15,970	15,817
Female	Person	960	956	967
Percentage of female	%	5.6	5.7	5.8
<b>By region</b>				
South Korea	Person	16,688	16,535	16,373
Asia (excluding South Korea)	Person	315	300	304
North America	Person	51	38	42
Latin America	Person	13	16	29
Europe	Person	34	25	26
Other regions	Person	6	12	10
Percentage of permanent employees	%	94.4	94.1	93.7
<b>Contingent employees</b>	Person	1,007	1,052	1,129
<b>By gender</b>				
Male	Person	957	1,004	1,081
Female	Person	50	48	48
Percentage of female	%	5.0	4.6	4.3
<b>By region</b>				
South Korea	Person	996	1,042	1,126
Asia (excluding South Korea)	Person	7	8	3
North America	Person	2	1	0
Latin America	Person	0	1	0
Europe	Person	2	0	0
Other regions	Person	0	0	0
Percentage of contingent employees	%	5.6	5.9	6.3

1) Includes both registered and non-registered executives; figures may differ from the "Matters Related to Executives and Employees, etc." section of the Annual Report

2) 2022 and 2023 data adjusted to correct aggregation errors (including subordinated items)

## New Hire

New Hire	Unit	2022	2023	2024
<b>Number of new employee hires <sup>1)</sup></b>	Person	1,669	1,511	1,535
By gender				
Male	Person	1,580	1,452	1,447
Female	Person	89	59	88
Percentage of female	%	5.3	3.9	5.7
By age group				
Under 30 years old	Person	731	772	943
30-50 years old	Person	283	211	211
Over 50 years old	Person	655	528	381

<sup>1)</sup> 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

## Turnover

Turnover	Unit	2022	2023	2024
<b>Number of turnover <sup>1)</sup></b>	Person	1,524	1,281	1,476
Turnover rate	%	8.4	7.1	8.2
Number of voluntary turnover				
Male	Person	479	326	375
Female	Person	49	22	30
Voluntary turnover rate	%	2.9	1.9	2.3
Number of involuntary turnover				
Retirement by age	Person	588	519	559
Redundancy	Person	0	0	0
Others	Person	408	414	512

<sup>1)</sup> 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

## Evaluation

Evaluation	Unit	2022	2023	2024
<b>Number of employees' performance evaluations</b>	Person	15,300	15,663	15,524
By gender				
Male	Person	14,464	14,795	14,656
Female	Person	836	868	868
By contract				
Permanent employees	Person	15,137	15,492	15,360
Contingent employees	Person	163	171	164

## Training

Training	Unit	2022	2023	2024
<b>Total employee training</b>	Hour	1,769,947	1,808,072	1,980,562
Male	Hour	-	-	1,904,813
Female	Hour	-	-	75,749
<b>Average hours of training per employee</b>	Hour	98	101	111
<b>By gender</b>				
Male	Hour	-	-	113
Female	Hour	-	-	75
<b>By position</b>				
Executive	Hour	-	-	154
Manager	Hour	-	-	125
General staff	Hour	-	-	106
<b>Training expenses</b>	KRW million	22,938	31,934	32,500
<b>Average training expenses per employee</b>	KRW million/Person	1.3	1.8	1.8
<b>Number of employees trained on occupational safety <sup>1)</sup></b>	Person	73,964	82,366	54,602
<b>Number of employees trained on information security</b>	Person	17,180	17,073	17,260
Permanent employees	Person	16,158	15,980	15,876
Contingent employees	Person	1,022	1,093	1,384
<b>Total hours of employees trained on information security</b>	Hour	24,338	14,228	12,945

<sup>1)</sup> Number of trained employees includes duplicates, as the calculation is based on completion of mandatory trainings

## Diversity and Inclusion

Diversity and Inclusion	Unit	2022	2023	2024
<b>Employees with disabilities <sup>1)</sup></b>	Person	565	580	651
<b>Employees entitled to veterans benefits</b>	Person	738	705	710

<sup>1)</sup> Based on Article 28-3, Special Provision for Calculating the Number of Employees with Disabilities, of the Act on the Employment Promotion and Vocational Rehabilitation of Persons with Disabilities

## Family-Friendly Practices

Family-Friendly Practices	Unit	2022	2023	2024
Number of employees who utilized family-friendly programs	Person	950	965	1,064
Employees who took parental leave <sup>1)</sup>	Person	242	260	293
Male	Person	133	156	186
Female	Person	109	104	107
Employees returning from parental leave and staying over 12 months	Person	102	120	143
Male	Person	41	58	91
Female	Person	61	62	52
Employees who took fertility treatment leave	Person	81	111	109
Employees under flexible work program <sup>2)</sup>	Person	4,887	7,129	11,618

<sup>1)</sup> Refers to employees who took parental leave at least once during the year (figures may differ from those in the annual report); 2022 data adjusted to correct aggregation errors (including subordinated items)

<sup>2)</sup> 2022 and 2023 data adjusted to reflect a change in the aggregation method; 2023 and 2024 data may differ from the annual report due to aggregation errors in the annual report

## Labor Relations

Labor Relations	Unit	2022	2023	2024
Percentage of employees covered by collective bargaining agreements	%	100	100	100
Number of lockouts due to strikes	Time	0	0	0

## Social Contribution

Social Contribution	Unit	2022	2023	2024
Hours spent on voluntary work <sup>1)</sup>	Hour	343,039	398,174	390,081
Social contribution expenses <sup>2)</sup>	KRW million	54,257	55,128	52,425

<sup>1)</sup> 2022 and 2023 data adjusted to reflect a change in the aggregation method

<sup>2)</sup> 2023 data adjusted to correct aggregation errors

## QMS Certification

QMS Certification (Quality Management System, ISO 9001 or IATF 16949)	Unit	2022	2023	2024
Percentage of worksites with QMS certification	%	100	100	100
Worksites requiring QMS certification	Site	2	2	2
Certified worksites with QMS	Site	2	2	2

## G(Governance)

### Ethics

Ethics	Unit	2022	2023	2024
<b>Number of ethics reports filed</b>	Case	403	420	418
Corruption	Case	165	124	119
Violations of human rights	Case	46	68	107
Abuse of power	Case	16	23	21
Other	Case	176	205	171
<b>Number of resolved ethics reports</b>	Case	403	420	418
<b>Training on ethics</b>				
Total hours of employee training	Hour	35,198	23,320	22,765
Number of employees trained	Person	17,599	17,490	17,074

### Fair trade

Fair trade	Unit	2022	2023	2024
<b>Number of employees trained on fair trade <sup>1)</sup></b>	Person	2,410	2,070	2,117
<b>Number of incidents of non-compliance with fair trade laws</b>	Case	0	0	0

<sup>1)</sup> Based on individual completion of training programs, which may include duplicates; 2022 and 2023 POSCO data adjusted to reflect a change in the aggregation method

# Domestic and Overseas Subsidiaries

## Financial and Production Information

### Financial and Production Information (Domestic&Overseas)

Financial and Production Information	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
Sales <sup>1)</sup>	KRW million	35,152,358	7,676,782	38,971,567	6,884,899	2,314,374	37,556,523	6,283,352	7,973,785
Crude steel production <sup>2)</sup>	1,000 tons	34,219	4,416	35,682	4,259	0	35,048	4,233	0
Blast furnace/Converter	1,000 tons	33,255	3,030	34,625	3,005	0	33,893	2,981	0
Percentage from blast furnace/converter	%	97.2	68.6	97.0	70.6	N/A	96.7	70.4	N/A
Electric Arc Furnace	1,000 tons	964	1,386	1,057	1,254	0	1,154	1,253	0
Percentage from electric arc furnace	%	2.8	31.4	3.0	29.4	N/A	3.3	29.6	N/A

<sup>1)</sup> Covers the 10-month sales period from March to December 2022, following the corporate spin-off from POSCO Holdings on March 1, 2022

<sup>2)</sup> 2022 and 2023 data for integrated mill adjusted to correct aggregation errors (including subordinated items)

# E(Environmental)

## GHG Emissions (Domestic&Overseas)

GHG Emissions <sup>1)</sup>	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill <sup>2)</sup>	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Direct/Indirect GHG emissions(Scope 1&amp;2)</b>	tCO <sub>2</sub> e	70,185,623	8,412,126	71,971,900	8,383,419	315,115	71,065,170	8,174,071	581,439
Direct emissions(Scope 1)	tCO <sub>2</sub> e	68,305,993	7,153,995	70,588,012	7,015,365	129,747	69,665,353	6,806,052	290,866
Indirect emissions(Scope 2)	tCO <sub>2</sub> e	1,879,630	1,258,131	1,383,895	1,368,054	185,367	1,399,825	1,368,018	290,571
<b>GHG emissions intensity <sup>3)</sup></b>	tCO <sub>2</sub> e/ton	2.05	1.90	2.02	1.97	N/A	2.03	1.93	N/A

1) 2023 and 2024 GHG emissions of overseas subsidiaries not subject to third-party verification by a GHG verification agency

2) 2023 data for re-rolling mill adjusted to correct aggregation errors (including subordinated items)

3) Re-rolling mills and processing centers excluded from intensity calculations as they do not produce crude steel

## Energy (Domestic&Overseas)

Energy <sup>1)</sup>	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Energy consumption</b>	GJ	333,781,599	38,794,427	354,002,733	38,163,868	3,486,048	359,242,804	37,671,934	7,303,823
<b>Energy directly consumed</b>	GJ	319,078,303	31,169,983	342,940,165	31,325,501	2,309,057	348,022,726	30,274,830	4,950,872
Coal <sup>2)</sup>	GJ	-	455,618	0	578,042	0	0	489,121	0
Natural gas	GJ	30,750,384	5,056,149	45,697,279	5,506,875	2,286,575	60,987,933	5,480,678	4,909,729
By-product gas	GJ	288,103,292	25,479,428	294,489,643	25,067,682	0	284,088,474	24,110,656	0
Kerosene	GJ	-	-	2,643	0	0	2,050	0	0
Gasoline	GJ	6,249	0	5,569	0	162	6,740	0	5,515
Diesel fuel	GJ	218,348	177,131	189,682	171,830	19,483	190,644	192,350	29,302
Liquefied petroleum gas (LPG)	GJ	30	1,657	0	1,072	2,837	0	2,025	6,324
Propane	GJ	-	-	5,377	0	0	5,452	0	0
Other fuels	GJ	-	-	2,549,972	0	0	2,741,433	0	0
<b>Energy indirectly consumed</b>	GJ	14,703,073	7,616,815	11,062,333	6,827,143	959,017	11,219,131	7,385,398	2,111,205
Electricity	GJ	14,618,973	6,227,476	10,837,975	5,734,501	959,017	10,963,428	6,044,814	1,871,476
Steam	GJ	84,100	1,389,339	224,358	1,092,642	0	255,703	1,340,584	239,728
Renewable energy consumed	GJ	223	7,629	235	11,224	217,974	946	11,706	241,747
<b>Energy intensity <sup>3)</sup> per crude steel production</b>	GJ/ton	9.75	8.78	9.92	8.96	N/A	10.25	8.90	N/A

1) 2022 and 2023 data adjusted to correct aggregation errors (including subordinated items)

2) Refers to energy consumption, excluding iron ore reductant reported as raw material

3) Re-rolling mills and processing centers excluded from intensity calculations as they do not produce crude steel

## Environmental Certification (Domestic&Overseas)

Environmental Certification	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
Percentage of worksites with ISO 14001 certification	%	100	100	100	100	100	100	100	93
Worksites requiring ISO 14001 certification	Site	2	3	2	3	2	2	3	14
Certified worksites with ISO 14001	Site	2	3	2	3	2	2	3	13

## Air (Domestic&Overseas)

Air	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
Emissions of air pollutants	ton	53,451	13,081	55,042	13,376	N/A	49,340	12,700	465
NOx	ton	27,653	6,539	27,685	6,607	N/A	23,909	6,204	369
SOx	ton	23,294	4,548	23,945	4,736	N/A	22,366	4,808	11
Dust	ton	2,504	1,994	3,413	2,031	N/A	3,065	1,688	84

1) 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

2) POSCO-Maharashtra and POSCO Thainox excluded from total air pollutant emissions, as their emissions are measured using concentration standards (ppm) in accordance with country-specific regulations

## Waste (Domestic&Overseas)

Waste <sup>1)</sup>	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Total waste generated</b>	ton	19,116,690	2,317,573	19,523,970	2,247,683	76,251	20,203,736	2,213,506	149,705
Recycled	ton	18,787,157	2,298,264	19,242,999	2,223,646	62,450	19,951,274	2,196,635	131,080
Incinerated	ton	62,031	4,764	52,034	5,112	256	55,216	5,243	2,526
Landfilled	ton	267,470	16	228,633	0	2,590	197,074	0	4,592
Other ways	ton	32	14,516	304	18,926	10,955	171	11,628	11,507
<b>Designated waste</b>	ton	96,579	434,360	108,491	464,957	65,126	106,581	496,674	71,466
Recycled	ton	59,344	418,759	58,307	444,934	60,192	60,447	483,944	62,789
Incinerated	ton	16,546	1,069	8,691	1,098	256	9,383	1,102	2,526
Landfilled	ton	20,657	16	41,188	0	2,555	36,580	0	3,753
Other ways	ton	32	14,516	304	18,926	2,123	171	11,628	2,397
<b>General waste</b>	ton	19,020,111	1,883,199	19,415,479	1,782,726	11,125	20,097,155	1,716,832	78,239
Recycled	ton	18,727,813	1,879,505	19,184,692	1,778,712	2,257	19,890,828	1,712,691	68,291
Incinerated	ton	45,485	3,695	43,342	4,014	0	45,833	4,141	0
Landfilled	ton	246,813	0	187,445	0	36	160,494	0	840
Other ways	ton	0	0	0	0	8,832	0	0	9,110
<b>Waste generated intensity <sup>2)</sup> per crude steel production</b>	ton/ton	0.56	0.52	0.55	0.53	N/A	0.58	0.52	N/A
<b>Percentage of waste recycled</b>	%	98.3	99.2	98.6	98.9	81.9	98.8	99.2	87.6

1) 2022 and 2023 data adjusted to correct aggregation errors (including subordinated items)

2) Re-rolling mills and processing centers excluded from intensity calculations as they do not produce crude steel

## Water (Domestic&Overseas)

Water	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Total water withdrawal</b>	ton	145,115,608	13,708,923	153,645,403	15,115,560	2,051,931	156,026,930	14,794,159	3,405,962
Municipal water	ton	0	9,536,820	0	10,825,856	2,051,931	0	10,666,070	3,392,906
Surface water	ton	108,957,548	4,172,103	115,497,855	4,289,704	0	119,307,357	4,128,089	0
Groundwater	ton	3,451,420	0	4,154,290	0	0	4,556,880	0	13,056
Desalinated water	ton	3,608,003	0	5,044,618	0	0	2,992,678	0	0
Reused municipal wastewater	ton	29,098,637	0	28,948,640	0	0	29,170,015	0	0
Total water withdrawal in regions with 'High' baseline water stress <sup>1)</sup>	ton	0	0	84,054,014	9,685,311	518,177	87,319,386	9,395,856	646,033
Total water withdrawal in regions with 'Extremely High' baseline water stress	ton	0	0	0	0	0	0	0	55,465
<b>Total water withdrawal intensity <sup>2)</sup> per crude steel production</b>	ton/ton	4.24	3.1	4.31	3.55	N/A	4.45	3.49	N/A
<b>Total water consumed</b>	ton	73,375,512	10,036,479	72,416,383	11,355,436	1,697,599	71,802,801	10,720,508	2,484,642
Total water consumed in regions with 'High' baseline water stress <sup>3)</sup>	ton	0	0	38,181,117	7,270,732	163,845	37,013,437	6,674,782	305,494
Total water consumed in regions with 'Extremely High' baseline water stress	ton	0	0	0	0	0	0	0	51,902
<b>Total wastewater discharge</b>	ton	71,740,096	3,672,444	81,229,020	3,760,124	354,332	84,224,129	4,123,651	921,320
<b>Total recycled/reused water</b>	ton	44,625,210	1,796,870	40,390,660	1,669,314	750,455	37,206,622	1,948,296	1,173,019
Percentage of total recycled/reused water	%	23.5	11.6	20.8	9.9	26.8	19.3	11.6	25.6

1) 2023 data adjusted to correct aggregation errors

2) Re-rolling mills and processing centers excluded from intensity calculations as they do not produce crude steel

3) 2023 POSCO data adjusted to reflect a change in the aggregation method

# S(Social)

## Work-Related Accident (Domestic&Overseas)

Work-Related Accident	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Lost Time Injury Rate (LTIR)</b>	Person/200,000 hours	0.19	0.02	0.07	0.02	0.03	0.17	0.04	0.04
Employee LTIR	Person/200,000 hours	0.11	0.04	0.03	0.02	0.00	0.19	0.05	0.05
Contractor LTIR	Person/200,000 hours	0.25	0.00	0.10	0.03	0.05	0.14	0.03	0.03
<b>Lost Time Injury Frequency Rate (LTIFR)</b>	Person/1,000,000 hours	0.93	0.08	0.35	0.12	0.13	0.83	0.19	0.20
Employee LTIFR	Person/1,000,000 hours	0.56	0.19	0.17	0.09	0.00	0.94	0.27	0.24
Contractor LTIFR	Person/1,000,000 hours	1.26	0.00	0.50	0.14	0.26	0.72	0.13	0.14
<b>Total Recordable Injury Rate (TRIR)</b>	Person/200,000 hours	0.35	0.03	0.33	0.06	0.16	0.36	0.09	0.35
Employee TRIR	Person/200,000 hours	0.27	0.08	0.35	0.07	0.17	0.39	0.09	0.41
Contractor TRIR	Person/200,000 hours	0.41	0.00	0.32	0.06	0.15	0.33	0.09	0.29
<b>Total Recordable Injury Frequency Rate (TRIFR)</b>	Person/1,000,000 hours	1.73	0.17	1.67	0.31	0.80	1.81	0.46	1.77
Employee TRIFR	Person/1,000,000 hours	1.37	0.38	1.76	0.36	0.84	1.96	0.45	2.06
Contractor TRIFR	Person/1,000,000 hours	2.06	0.00	1.59	0.28	0.77	1.65	0.46	1.43
<b>Fatality rate per 10,000 workers</b>	‰	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employee fatality rate per 10,000 workers	‰	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Contractor fatality rate per 10,000 workers	‰	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Employee accidents									
Number of employee Lost Time Injuries (LTI)	Person	20	2	6	1	0	33	3	2
Number of employee Total Recordable Injuries (TRI)	Person	49	4	62	4	3	69	5	17
Number of employee Fatalities	Person	0	0	0	0	0	0	0	0
Number of employee Injuries	Person	14	0	4	1	0	25	3	1
Contractor accidents									
Number of contractor Lost Time Injuries (LTI)	Person	50	0	20	2	1	26	2	1
Number of contractor Total Recordable Injuries (TRI)	Person	82	0	64	4	3	60	7	10
Number of contractor Fatalities	Person	1	0	0	0	0	0	0	0
Number of contractor Injuries	Person	30	0	16	2	1	23	2	0

## OHSMS Certification (Domestic&Overseas)

OHSMS Certification (Occupational Health and Safety Management System, ISO 45001 or OHSAS 18001 or KOSHA-MS)	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Percentage of worksites with OHSMS certification</b>	%	100	100	100	100	100	100	100	93
Worksites requiring OHSMS certification	Site	2	3	2	3	2	2	3	14
Certified worksites with OHSMS	Site	2	3	2	3	2	2	3	13

## Employee Status (Domestic&Overseas)

Employee Status	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Total number of employees</b>	Person	18,122	5,059	17,985	5,030	1,323	17,919	4,982	3,668
<b>Executive level <sup>2)</sup></b>	Person	67	6	67	6	5	65	5	6
<b>By gender</b>									
Male	Person	66	6	63	6	5	63	5	6
Female	Person	1	0	4	0	0	2	0	0
Percentage of female	%	1.5	0.0	6.0	0.0	0.0	3.1	0.0	0.0
<b>By age group</b>									
Under 30 years old	Person	0	0	0	0	0	0	0	0
30-50 years old	Person	0	1	0	1	2	0	1	3
Over 50 years old	Person	67	5	67	5	3	65	4	3
<b>Employees excluding executive level</b>	Person	18,055	5,053	17,918	5,024	1,318	17,854	4,977	3,662
<b>By gender</b>									
Male	Person	17,046	4,649	16,918	4,623	1,198	16,841	4,572	3,084
Female	Person	1,009	404	1,000	401	120	1,013	405	578
Percentage of female	%	5.6	8.0	5.6	8.0	9.1	5.7	8.1	15.8
<b>By age group</b>									
Under 30 years old	Person	3,035	1,583	3,241	1,270	253	3,139	896	696
30-50 years old	Person	7,353	3,229	7,472	3,502	881	7,873	3,859	2,699
Over 50 years old	Person	7,667	241	7,205	252	184	6,842	222	267
<b>Managers (among employees excluding executive level)</b>	Person	4,069	404	4,043	411	189	4,094	414	719
<b>By gender</b>									
Male	Person	3,998	360	3,972	368	170	4,013	369	614
Female	Person	71	44	71	43	19	81	45	105
Percentage of female	%	1.7	10.9	1.8	10.5	10.1	2.0	10.9	14.6
<b>By age group</b>									
Under 30 years old	Person	1	12	2	6	0	3	7	4
30-50 years old	Person	1,191	348	1,363	365	122	1,650	365	617
Over 50 years old	Person	2,877	44	2,678	40	67	2,441	42	98
<b>Permanent employees</b>	Person	17,107	4,686	16,926	4,636	1,305	16,784	4,528	3,486
<b>By gender</b>									
Male	Person	16,147	4,337	15,970	4,291	1,185	15,817	4,184	2,943
Female	Person	960	349	956	345	120	967	344	543
Percentage of female	%	5.6	7.4	5.6	7.4	9.2	5.8	7.6	15.6
<b>Percentage of permanent employees</b>	%	94.4	92.6	94.1	92.2	99.0	93.7	90.9	95.2

<b>Contingent employees</b>	Person	1,007	373	1,052	394	13	1,129	452	177
By gender									
Male	Person	957	319	1,004	338	13	1,081	391	142
Female	Person	50	55	48	56	0	48	61	35
Percentage of female	%	5.0	14.7	4.6	14.2	0.0	4.3	13.5	19.8
Percentage of contingent employees	%	5.6	7.4	5.9	7.8	1.0	6.3	9.1	4.8

1) 2022 and 2023 data adjusted to correct aggregation errors (including subordinated items)

2) Includes both registered and non-registered executives

## New Hire (Domestic&Overseas)

New Hire	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
<b>Number of new employee hires 1)</b>	Person	1,669	327	1,511	211	82	1,535	180	273
By gender									
Male	Person	1,580	278	1,452	182	78	1,447	138	219
Female	Person	89	49	59	29	4	88	42	54
Percentage of female	%	5.3	15.0	3.9	13.7	4.9	5.7	23.3	19.8
By age group									
Under 30 years old	Person	731	264	772	117	48	943	122	155
30-50 years old	Person	283	41	211	65	30	211	45	114
Over 50 years old	Person	655	22	528	29	4	381	13	4

1) 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

## Turnover (Domestic&Overseas)

Turnover	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
Number of turnover <sup>1)</sup>	Person	1,524	244	1,281	253	70	1,476	237	377
Turnover rate	%	8.4	4.8	7.1	5.0	5.3	8.2	4.8	10.3
Number of voluntary turnover	Person	528	226	348	225	65	405	162	213
Male	Person	479	188	326	198	59	375	138	180
Female	Person	49	38	22	27	6	30	24	33
Voluntary turnover rate	%	2.9	4.5	1.9	4.5	4.9	2.3	3.3	5.8
Number of involuntary turnover	Person	996	18	933	28	5	1,071	75	164
Retirement by age	Person	588	10	519	14	4	559	7	11
Redundancy	Person	0	4	0	11	0	0	0	3
Others	Person	408	4	414	3	1	512	68	150

<sup>1)</sup> 2022 and 2023 data adjusted to reflect a change in the aggregation method (including subordinated items)

## QMS Certification (Domestic&Overseas)

QMS Certification (Quality Management System, ISO 9001 or IATF 16949)	Unit	2022		2023			2024		
		POSCO	Integrated Mill	POSCO	Integrated Mill	Re-Rolling Mill	POSCO	Integrated Mill	Re-Rolling Mill, Processing Center
Percentage of worksites with QMS certification	%	100	100	100	100	100	100	100	100
Worksites requiring QMS certification	Site	2	3	2	3	2	2	3	14
Certified worksites with QMS	Site	2	3	2	3	2	2	3	14

# Appendix

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# Verification Opinion

## Conclusion

We have performed a limited assurance engagement on whether the below Sustainability Information in the Sustainability Report (“Report”) of POSCO (the “Company”) as of the year ended 31 December, 2024 has been prepared in accordance with Criteria.

SMI	Period	Sustainability Report	Criteria
Global Reporting Initiative (GRI) Standards Index within the Report	As of the year ended 31 December, 2024	Overview > GRI Index	GRI Standards (Global Reporting Initiative)
ESG Data within the ESG Factbook	As of the year ended 31 December, 2024	Key data > ESG Factbook	POSCO Index

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that POSCO has not complied as of the year ended 31 December, 2024, in all material respects, with Criteria.

Our conclusion on the SMI does not extend to any other information that accompanies or contains the SMI and our report.

## Basis for conclusion

We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised) ‘Assurance Engagements Other Than Audits or Reviews of Historical Financial Information’, issued by the International Auditing and Assurance Standards Board (IAASB). Our responsibilities under this standard are further described in the “Our responsibilities” section of our report.

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA).

Our firm applies International Standard on Quality Management (ISQM) 1 ‘Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements’, issued by the IAASB. This standard requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

## Responsibilities for the SMI

Management of Company is responsible for:

- designing, implementing and maintaining internal control relevant to the preparation of the SMI such that they are free from material misstatement, whether due to fraud or error;
- selecting or developing suitable criteria for preparing the SMI and appropriately referring to or describing the criteria used; and
- preparing the SMI in accordance with the Criteria.

## Inherent limitations

The preparation of sustainability information requires management to establish or interpret the applicable criteria, determine the relevance of information to be included, and develop estimates and assumptions that affect the reported information. Entities may apply different but acceptable interpretations, judgments, and estimations. Sustainability information includes details about the company’s environmental,

social, and governance (ESG) initiatives and goals, the anticipated future impact of events that have occurred or are expected to occur, and information regarding commitments and uncertainties. Actual results may differ significantly from management’s current assessments, as events and circumstances often do not unfold as expected.

## Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the SMI are free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the management.

## Summary of the work we performed as the basis for our conclusion

We exercised professional judgment and maintained professional skepticism throughout the engagement. We designed and performed our procedures to obtain evidence about the SMI that is sufficient and appropriate to provide a basis for our conclusion. Our procedures selected depended on our understanding of the SMI and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. In carrying out our engagement, the procedures we performed primarily consisted of:

- Understand the systems and processes in place for managing and reporting the Identified Sustainability Information
- Review documents and interview with the personnel relevant to the risk assessment process and materiality assessment
- Interview with the personnel responsible for internal reporting and data collection regarding POSCO’s Identified Sustainability Information to understand their approaches to manage material issues
- Review the underlying data for sustainability information related to material issues
- Perform inquiries and analytical reviews on the SMI
- Performed limited verification procedures on the data related to the SMI
- Verify that the financial information presented in the report is consistent with the audited financial statements of the company
- Assess whether the information presented in the report is consistent with our overall knowledge and experience of the company’s sustainability performance

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

*ICPMG Samjong Accounting Corp.*

Seoul, Korea  
June 25, 2025

This report is effective as of 25 June, 2025, the assurance report date. Certain subsequent events or circumstances, which may occur between the assurance report date and the time of reading this report, could have a material impact on the Company’s Sustainability Report. Accordingly, the readers of the assurance report should understand that the above assurance report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

GV-25224

# Verification Opinion Statement

## GHG Emissions Verification

**POSCO Corporation**

### Verification Target

Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of GHG Report of POSCO Corporation<sup>1)</sup> (hereinafter 'Company') for 2024.

1) Address (based on headquarters) : 6261, Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do, the Republic of Korea

### Verification Purpose

The purpose is to ensure the reliability of the company's GHG Report in relation to the operation of the Emissions Trading Scheme.

### Verification Scope

KFQ's verification covered all facilities and emission sources under the operational control and organizational boundary of Company during 2024.

### Verification Criteria

The verification process was based on [Rule for emission reporting and certification of GHG emission trading Scheme<sup>1)</sup>], [Rules for verification of operating the GHG emission trading scheme<sup>2)</sup>] and [ISO14064-3] for every applicable part.

1) Notification No. 2025-28 of Ministry of Environment 2) Notification No. 2024-169 of Ministry of Environment

### Level of Assurance

The Verification has been planned and conducted as the 'Rules for verification of operating the GHG emission trading scheme', and the level of assurance for verification shall be satisfied as reasonable level of assurance. And it was confirmed through an internal review whether the entire process of verification was conducted effectively.

### Verification Limitation

The verification shall contain the potential inherent limitation in the process of application of the verification criteria and methodology.

### Verification Opinions

KFQ present the following conclusions regarding the GHG emissions data included in the GHG Report.

- 1) GHG emissions have been appropriately calculated according to the "Rule for emission reporting and certification of GHG emission trading Scheme" and "ISO14064-1" methodologies.
- 2) The materiality assessment result of GHG emissions has satisfied the criteria for an organization that emits more than 5,000,000 tCO<sub>2</sub>-eq by meeting less than 2% of the total emissions.
- 3) Thus, KFQ concludes that GHG Emissions of Company in 2024 is correctly calculated and reported in accordance with "Rule for emission reporting and certification of GHG emission trading Scheme".

Unit : tCO<sub>2</sub>eq

Scope 1	Scope 2	Total
69,665,352.834	1,399,824.67	71,065,170

\* The totals in this verification statement do not match the totals in emission trading scheme because the total emissions of each facility are calculated by truncating to integer units

June 18<sup>th</sup>, 2025

*Ji Young Song*

CEO Ji-Young Song  
Korean Foundation for Quality



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# Verification Opinion Statement

## GHG Emissions Verification

POSCO Corporation

### Verification Target

Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of '2024 Quantity of GHG emissions(Scope3) and Avoided GHG emissions' of POSCO Corporation<sup>1)</sup> (hereinafter 'Company') for 2024. KFQ is responsible for providing an assurance statement on the GHG emissions based on the verification scope and criteria described below, while the responsibility for the claims made regarding the GHG emissions rests with the company.

1) Address (based on headquarters) : 6261, Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do, the Republic of Korea

### Verification Purpose

The purpose is to provide an independent verification opinion on the company's GHG emissions(Scope3) and Avoided GHG emissions.

### Verification Scope

The scope of verification under the Company's operational control is as follows:

- 1) Scope3 emissions : Category 1, 2, 3, 4, 5, 6, 7, 9, 13, 15
- 2) Avoided GHG emissions : High-strength automotive steel sheets, Low core loss electrical steel, Blast furnace slag

### Verification Criteria

The following criteria and coefficients used by the company were applied.

- GHG emissions(Scope3)
  - WBCSD/WRI, Corporate Value Chain (Scope 3) Accounting and Reporting Standard
  - ISO14064-1:2018
  - GHG Protocol Corporate Standard
  - ISO14064-3:2019
- Emission factor
  - Upstream emissions information disclosed by raw material suppliers
  - LCA information for 'Environmental Product Declaration' products
  - Environmental Product Declaration evaluation coefficient (2021)
  - GHG emission calculator tool (UNFCCC)
  - ICAO calculator
- Avoided GHG emissions
  - Internal calculation criteria of the Company

### Level of Assurance

The verification has been conducted in accordance with the verification principles and standards of the 'ISO14064-3:2019' under the limited verification level.

### Verification Limitation

GHG emissions(Scope3) and Avoided GHG emissions verification involves inherent limitations that may arise depending on the organization's data characteristics, calculations and estimates, sampling method, and limited assurance level. Additionally, this verification does not include responsibility for the accuracy of the original data provided by the company.

### Conclusion

Based on the criteria and guidelines stated above, KFQ's verification opinion is as follows.

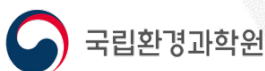
- 1) The Company's "2024 GHG emission (Scope3) and Avoided GHG Emissions" was appropriately calculated according to the "Technical Guidance for Calculation Scope 3 Emission (Greenhouse Gas Protocol)" and internal standards.
- 2) The criteria and process established by the company for calculating GHG emissions were transparently documented in the internal calculation process to prevent potential misunderstandings.
- 3) It was confirmed that the internal criteria of Avoided GHG Emissions maintains consistency and accuracy in its internal criteria. Parts of activity data and parameters in the process of reduction effects calculation were assumed based on conservative principles to prevent overestimation of the reduction.

June 17, 2025

*Ji Young Song*

CEO Ji-Young Song  
Korean Foundation for Quality

## Appendix A. Summary of Scope3 GHG Emission Results



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## Appendix A. Summary of Scope 3 GHG Emission Results

### Organization

POSCO Corporation

### Emission calculation period

The emission calculation period is from January 1st to December 31st, 2024.

### Company Scope 3 Emissions verification Results

Unit : tCO<sub>2</sub>eq

Criteria		Emissions
GHG Emission (Scope3)	Purchased goods and services	2,170,214
	Capital goods	939
	Fuel-and energy-related activities (not included in scope1 or scope2)	735,200
	Upstream transportation & distribution	1,949,126
	Waste generated in operations	189,643
	Business travel	1,895
	Employee commuting	7,924
	Downstream transportation & distribution	28,695
	Downstream leased assets	1,935,128
	Investments	198,023
	<b>Total</b>	<b>7,216,788</b>
Avoided GHG Emissions	High-strength automotive steel sheets	1,841,026
	Low core loss electrical steel	4,738,646
	Blast furnace slag	6,099,307
	<b>Total</b>	<b>12,678,980</b>

