

LG ENERGY SOLUTION, LTD. AND ITS SUBSIDIARIES

**Consolidated Financial Statements
As of and for the Years Ended December 31, 2024 and 2023**

(With the Independent Auditor's Report Thereon)

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Independent Auditor's Report

English Translation of Independent Auditor's Report Originally Issued in Korean on March 5, 2025

To the Shareholders and the Board of Directors of LG Energy Solution, Ltd.:

Audit Opinion

We have audited the consolidated financial statements of LG Energy Solution, Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as of December 31, 2024 and 2023, and the related consolidated statements of profit or loss, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows, all expressed in Korean won, for the years then ended, and notes to the consolidated financial statements, including material accounting policy information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2024 and 2023, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

We have also audited, in accordance with the Korean Standards on Auditing ("KSAs"), the internal control over financial reporting of the Group as of December 31, 2024, based on the 'Conceptual Framework for Design and Operation of Internal Control Over Financial Reporting', and our report dated March 05, 2025, expressed an unqualified opinion.

Basis for Audit Opinion

We conducted our audits in accordance with the KSAs. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audits of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audits of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters

The key audit matters are those matters that, in our professional judgment, were of most significance in our audits of the consolidated financial statements of the current period. These matters were addressed in the context of our audits of the consolidated financial statements, as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Warranty Provisions

1) Description of Key Audit Matter

As stated in Notes 4 and 15 of the consolidated financial statements, the warranty provisions are estimated based on the average warranty period, revenue and historical claim experience rate, or the number of vehicles subject to recall, the expected total repair costs, etc. The estimated amount of the warranty provisions based on experience rate etc, recognized by the Company is ₩1,204,813 million as of December 31, 2024.

We have assessed this item as a Key Audit Matter, considering that the recognized amount of the warranty provision based on experience rate etc, is material, and the significant management judgment is involved in estimation.

2) How our audit addressed the Key Audit Matter

Our procedures included the following:

- Evaluate whether the Company's policies for measuring and recognizing warranty provisions comply with accounting standards.
- Perform the following procedures to assess the reasonableness of the key variables, including relevant revenue, claim rate and warranty period used by management:
 - Evaluate whether the Company's internal controls for recognizing and measuring the warranty provisions are effectively designed and operated.
 - Evaluate the adequacy of the claim rate (relevant revenue and claim costs) of general warranty provision.
 - Assess whether the warranty provision is calculated exactly based on the claim rate and relevant revenue.
 - Evaluate the adequacy of average warranty period for each business unit.
- Independently recalculate the balance of the warranty provisions by developing and applying a statistical model based on the analysis of the historical claim occurrence cycle.
- Assess the adequacy of the related footnote disclosures.

Timing of Revenue Recognition for Customer Compensation

1) Description of Key Audit Matter

The Group's sales of automotive batteries, its primary product, declined during the current period due to a temporary slowdown in demand within the electric vehicle market. As a result, the Group has been receiving compensation from automotive OEM customers for reduced order volumes and others.

As stated in Notes 2.7 and 21 of the consolidated financial statements, the Group identifies performance obligations within customer contracts and recognizes revenue when those obligations are satisfied.

We have determined this matter to be a Key Audit Matter, considering that customer compensation revenue recognized for the year ended December 31, 2024, amounted to ₩1,365,723 million, representing a material portion of total revenue, that the nature and terms of customer compensation agreements vary by customer, and that significant management judgment is involved when determining the satisfaction of performance obligations and the timing of revenue recognition.

2) How our audit addressed the Key Audit Matter

Our procedures included the following:

- Evaluate whether the Group's accounting policies for measuring and recognizing customer compensation revenue are in compliance with accounting standards.
- Evaluate whether the Group's internal controls for recognizing customer compensation revenue are effectively designed and operated.
- Perform a sample test on compensation revenue as follows:
 - Obtain initial supply contracts, compensation agreements, internal approval documents, invoices, proof of payment and other relevant audit evidence from the Group's sales department.
 - Verify the total compensation amount and assess the level of uncertainty associated with the compensation amount based on the obtained supply contracts, compensation agreements, and others.
 - Independently recalculate the compensation revenue by measuring the performance obligations satisfied during the current period and determining any remaining performance obligations to be fulfilled at the point when the compensation amount is finalized, in accordance with the contracts, compensation agreements, revenue recognition standards, and others.
- Assess the adequacy of the related disclosures.

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Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation of the accompanying consolidated financial statements in accordance with K-IFRSs, and for such internal control as they determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management of the Group is responsible for assessing the Group's ability to continue as a going concern; disclosing, as applicable, matters related to going concern; and using the going-concern basis of accounting, unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative, but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audits of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the management's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group's audit. We are solely responsible for our audit opinion.

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We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are, therefore, the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Kiu Seok Seo.

Deloitte Idnjin LLC

March 5, 2025

This report is effective as of March 5, 2025, the auditor's report date. Certain subsequent events or circumstances may have occurred between the auditor's report date and the time the auditor's report is read. Such events or circumstances could significantly affect the consolidated financial statements and may result in modifications to the auditor's report.

LG ENERGY SOLUTION, LTD. AND ITS SUBSIDIARIES

Consolidated financial statements
as of and for the years ended December 31, 2024 and 2023

“The accompanying consolidated financial statements, including all footnotes and disclosures, have been prepared by, and are the responsibility of, the Group.”

Dong Myung Kim
Chief Executive Officer
LG Energy Solution, Ltd.

LG Energy Solution, Ltd. and its subsidiaries
Consolidated statements of financial position
As of December 31, 2024 and 2023

(Korean won in millions)

	Notes		December 31, 2024		December 31, 2023
Assets					
Current assets					
Cash and cash equivalents	3,5,6	₩	3,898,711	₩	5,068,783
Trade receivables	3,5,7,30		4,944,019		5,128,474
Other receivables	3,5,7,30		603,635		555,186
Other current financial assets	3,5,8		42		65,439
Prepaid income taxes			121,269		67,072
Other current assets	13		1,207,364		927,106
Inventories	9		4,552,355		5,396,336
			<u>15,327,395</u>		<u>17,208,396</u>
Non-current assets					
Trade receivables	3,5,7		392,584		129,995
Other receivables	3,5,7,30		134,450		122,282
Other non-current financial assets	3,5,8		1,132,368		357,038
Investments in associates and joint ventures	10,30		62,389		223,559
Deferred tax assets	27		2,774,153		2,228,924
Property, plant and equipment	11,18,32		38,349,552		23,654,677
Intangible assets	12,32		1,284,576		875,993
Investment properties	32,34		225,934		212,489
Other non-current assets	13,16		623,390		423,791
			<u>44,979,396</u>		<u>28,228,748</u>
Total assets		₩	<u>60,306,791</u>	₩	<u>45,437,144</u>
Liabilities					
Current liabilities					
Trade payables	3,5,30	₩	2,705,481	₩	3,093,719
Other payables	3,5,30		5,389,848		3,458,103
Borrowings	3,5,11,14,31		2,490,240		3,211,456
Provisions	15		1,044,468		517,170
Other current financial liabilities	3,5,8		1,159		7,652
Income tax payables			15,550		33,321
Other current liabilities	17,33		408,176		615,764
			<u>12,054,922</u>		<u>10,937,185</u>
Non-current liabilities					
Non-current other payables	3,5,30		22,082		25,291
Borrowings	3,5,11,14,31		12,900,311		7,720,832
Other non-current financial liabilities	3,5,8		1,000,635		68,824
Provisions	15		778,686		869,123
Net defined benefit liabilities	16		403		239
Deferred tax liabilities	27		60,733		19,958
Other non-current liabilities	17,33		2,522,476		1,422,183
			<u>17,285,326</u>		<u>10,126,450</u>
Total liabilities			<u>29,340,248</u>		<u>21,063,635</u>
Equity attributable to owners of the Parent Company					
Share capital	19		117,000		117,000
Capital surplus	19		17,164,627		17,164,627
Accumulated other comprehensive income			2,437,399		554,518
Retained earnings	20		1,397,211		2,364,496
			<u>21,116,237</u>		<u>20,200,641</u>
Non-controlling interest	1		<u>9,850,306</u>		<u>4,172,868</u>
Total equity			<u>30,966,543</u>		<u>24,373,509</u>
Total liabilities and equity		₩	<u>60,306,791</u>	₩	<u>45,437,144</u>

The accompanying notes are an integral part of the consolidated financial statements.

LG Energy Solution, Ltd. and its subsidiaries
Consolidated statements of profit or loss
For the years ended December 31, 2024 and 2023

(Korean won in millions)

	<u>Notes</u>	<u>2024</u>	<u>2023</u>
Revenue	30,33,35	₩ 25,619,585	₩ 33,745,470
Cost of sales	21,22,30	<u>22,213,605</u>	<u>28,802,437</u>
Gross profit		3,405,980	4,943,033
Other operating income		1,480,020	676,874
Selling and administrative expenses	21,22,30	<u>4,310,613</u>	<u>3,456,673</u>
Operating profit		575,387	2,163,234
Finance income	5,24,30	1,048,343	984,984
Finance costs	5,24,30	1,260,579	857,201
Share of loss of associates and joint ventures	10	(49,118)	(32,450)
Other non-operating income	25	858,811	1,125,846
Other non-operating expenses	26	<u>823,973</u>	<u>1,340,953</u>
Profit before income tax expense		348,871	2,043,460
Income tax expense	27	<u>10,269</u>	<u>405,475</u>
Profit for the period		<u>₩ 338,602</u>	<u>₩ 1,637,985</u>
Profit for the period attributable to:			
Owners of the Parent Company		₩ (1,018,741)	₩ 1,237,180
Non-controlling interests	1	1,357,343	400,805
Earnings(losses) per share attributable to the equity holders of the Parent Company (in Korean won)	28		
Basic or diluted earnings(losses) per share		(4,354)	5,287

The accompanying notes are an integral part of the consolidated financial statements.

LG Energy Solution, Ltd. and its subsidiaries
Consolidated statements of comprehensive income
For the years ended December 31, 2024 and 2023

(Korean won in millions)

	<u>Note</u>	<u>2024</u>	<u>2023</u>
Profit for the year	₩	338,602	₩ 1,637,985
Other comprehensive income:			
Items that will not be subsequently reclassified to profit or loss:			
Remeasurements of net defined benefit liabilities	16	66,579	(35,273)
Loss on valuation of financial assets at FVOCI	5	(251)	(136,381)
Income tax effect of other comprehensive income (loss)		<u>(15,165)</u>	<u>39,393</u>
		51,163	(132,261)
Items that may be subsequently reclassified to profit or loss:			
Exchange differences on translation of foreign operations		2,834,214	405,378
Gain (loss) on cash flow hedge	5	3,445	(17,203)
Share of other comprehensive income(loss) of associates and joint ventures	10	(22,595)	4,543
Income tax effect of other comprehensive income		<u>12,512</u>	<u>12,686</u>
		2,827,576	405,404
Other comprehensive income for the period, net of tax		<u>2,878,739</u>	<u>273,143</u>
Total comprehensive income for the period, net of tax	₩	<u>3,217,341</u>	₩ <u>1,911,128</u>
Total comprehensive income for the period attributable to:			
Owners of the Parent Company	₩	915,481	₩ 1,468,426
Non-controlling interest		2,301,860	442,702

The accompanying notes are an integral part of the consolidated financial statements.

LG Energy Solution, Ltd. and its subsidiaries
Consolidated statements of changes in equity
For the years ended December 31, 2024 and 2023

(Korean won in millions)

	Note	Attributable to the equity holders of the Parent Company					Non-controlling interests	Total
		Share capital	Capital surplus	Accumulated other comprehensive income (loss)	Retained earnings (accumulated deficit)	Subtotal		
As of January 1, 2023		₩ 117,000	₩ 17,164,627	₩ 296,070	₩ 1,154,518	₩ 18,732,215	₩ 1,861,547	₩ 20,593,762
Comprehensive income for the period:								
Profit for the period		-	-	-	1,237,180	1,237,180	400,805	1,637,985
Remeasurements of net defined benefit liabilities	16	-	-	-	(27,202)	(27,202)	-	(27,202)
Exchange differences on translation of foreign operations		-	-	371,891	-	371,891	41,897	413,788
Loss on valuation of financial assets at FVOCI	5	-	-	(105,060)	-	(105,060)	-	(105,060)
Loss on cash flow hedge	5	-	-	(12,926)	-	(12,926)	-	(12,926)
Equity adjustments in equity method	10	-	-	4,543	-	4,543	-	4,543
Total comprehensive income for the period		-	-	258,448	1,209,978	1,468,426	442,702	1,911,128
Transactions with owners of the Parent Company recognized directly in equity:								
Capital increase and others		-	-	-	-	-	1,868,619	1,868,619
Total transactions with owners of the Parent Company recognized directly in equity		-	-	-	-	-	1,868,619	1,868,619
As of December 31, 2023		<u>₩ 117,000</u>	<u>₩ 17,164,627</u>	<u>₩ 554,518</u>	<u>₩ 2,364,496</u>	<u>₩ 20,200,641</u>	<u>₩ 4,172,868</u>	<u>₩ 24,373,509</u>
As of January 1, 2024		₩ 117,000	₩ 17,164,627	₩ 554,518	₩ 2,364,496	₩ 20,200,641	₩ 4,172,868	₩ 24,373,509
Comprehensive income for the period:								
Profit for the period		-	-	-	(1,018,741)	(1,018,741)	1,357,343	338,602
Remeasurements of net defined benefit liabilities	16	-	-	-	51,341	51,341	-	51,341
Exchange differences on translation of foreign operations		-	-	1,903,034	-	1,903,034	944,517	2,847,551
Loss on valuation of financial assets at FVOCI	5	-	-	(177)	-	(177)	-	(177)
Gain on cash flow hedge	5	-	-	2,619	-	2,619	-	2,619
Equity adjustments in equity method	10	-	-	(22,595)	-	(22,595)	-	(22,595)
Total comprehensive income (loss) for the period		-	-	1,882,881	(967,400)	915,481	2,301,860	3,217,341
Transactions with owners of the Parent Company recognized directly in equity:								
Capital increase		-	-	-	-	-	3,375,677	3,375,677
Business combination		-	-	-	-	-	201,481	201,481
Others		-	-	-	115	115	(201,580)	(201,465)
Total transactions with owners of the Parent Company recognized directly in equity		-	-	-	115	115	3,375,578	3,375,693
As of December 31, 2024		<u>₩ 117,000</u>	<u>₩ 17,164,627</u>	<u>₩ 2,437,399</u>	<u>₩ 1,397,211</u>	<u>₩ 21,116,237</u>	<u>₩ 9,850,306</u>	<u>₩ 30,966,543</u>

The accompanying notes are an integral part of the consolidated financial statements.

LG Energy Solution, Ltd. and its subsidiaries
Consolidated statements of cash flows
For the years ended December 31, 2024 and 2023

(Korean won in millions)

	Note	2024	2023
Cash flows from operating activities:			
Cash generated from operations	31	₩ 6,024,678	₩ 5,373,458
Interest received		202,572	163,457
Interest paid		(600,569)	(366,783)
Dividends received		198	99
Income tax paid		(515,179)	(726,052)
Net cash provided by operating activities		5,111,700	4,444,179
Cash flows from investing activities:			
Cash inflow from investing activities:			
Decrease in other receivables		27,642	225,445
Decrease in other non-current receivables		9,272	6,827
Proceeds from disposal of financial assets		2,899	-
Proceeds from disposal of property, plant and equipment		74,540	102,241
Proceeds from disposal of intangible assets		10,644	1,454
Government grants received		731,457	384,209
Other cash inflow for investing activities		150	-
Business combination		59,825	-
		<u>916,429</u>	<u>720,176</u>
Cash outflow for investing activities:			
Increase in other receivables		(5,333)	(150,833)
Increase in other non-current receivables		(38,174)	(79,504)
Acquisition of investments in associates and joint ventures		(7,661)	(62,331)
Acquisition of financial instruments		(407,565)	(117,087)
Acquisition of property, plant and equipment		(12,399,017)	(9,923,051)
Acquisition of intangible assets		(121,351)	(102,266)
Other cash outflow for investing activities		(2,775)	(4,431)
		<u>(12,981,876)</u>	<u>(10,439,503)</u>
Net cash used in investing activities		(12,065,447)	(9,719,327)
Cash flows from financing activities:			
Cash inflow from financing activities:			
Proceeds from borrowings and others	31	8,195,125	6,272,451
Paid-in capital by non-controlling interests		3,375,677	2,065,974
Settlement of derivatives		106,450	-
		<u>11,677,252</u>	<u>8,338,425</u>
Cash outflow for financing activities:			
Repayments of borrowings and others	31	(6,094,167)	(3,786,380)
Others		(201,580)	(197,355)
		<u>(6,295,747)</u>	<u>(3,983,735)</u>
Net cash provided by financing activities		5,381,505	4,354,690
Net decrease in cash and cash equivalents		(1,572,242)	(920,458)
Cash and cash equivalents at beginning of the year		5,068,783	5,937,967
Effects of exchange rate changes on cash and cash equivalents		402,170	51,274
Cash and cash equivalents at end of the year		₩ 3,898,711	₩ 5,068,783

The accompanying notes are an integral part of the consolidated financial statements.

1. GENERAL:

General information about LG Energy Solution, Ltd. (the “Company” or the “Parent Company”) and its 23 subsidiaries (collectively, the “Group”) is as follows:

1.1 Company Information

The Parent Company, a split-off of LG Chem Ltd.’s battery division, was incorporated on December 1, 2020.

As of December 31, 2024, the Company is engaged in the battery industry, with its manufacturing facilities located in Ochang.

The Company’s shares have been listed on the Korea Exchange since January 27, 2022, and the share capital is ₩117,000 million as of December 31, 2024. The largest shareholder of the Company is LG Chem Ltd., which holds 81.84% of the Company’s ordinary shares.

The Company is authorized to issue 800 million shares (₩500 per share), and has issued 234 million of ordinary shares as of December 31, 2024.

1.2 Business Overview

The Group is engaged in the battery business.

The Group manufactures and supplies batteries ranging from IT and new application batteries for mobile phones and laptops to automotive batteries for electric vehicles and ESS batteries. Demand for mobile batteries for new applications, such as electric tools and other electrical devices, as well as traditional IT devices, is increasing recently, and the automotive battery business is also expected to expand rapidly due to increasing demand for batteries associated with enhanced environment regulation in developed countries. Demand for ESS is expanding with an increasing importance of efficient usage of electricity and generation of renewable energy.

LG Energy Solution, Ltd. and its subsidiaries
Notes to the consolidated financial statements
As of and for the years ended December 31, 2024 and 2023

1.3 Consolidated Subsidiaries and Investments in Associates and Joint Ventures

	<u>Ownership (%)</u>		<u>Location</u>	<u>Closing month</u>	<u>Business</u>
	<u>December 31, 2024</u>	<u>December 31, 2023</u>			
Subsidiaries:					
LG Energy Solution (Nanjing) Co., Ltd.	100	100	China	December	Mobile battery manufacturing, sales and others
LG Energy Solution Michigan Inc. (*1)	100	100	USA	December	Automotive battery research and manufacturing
LG Energy Solution Battery (Nanjing) Co., Ltd.	100	100	China	December	Automotive battery manufacturing and sales
LG Energy Solution Wroclaw sp. z o.o.	100	100	Poland	December	Automotive battery manufacturing and sales
LG Energy Solution Australia Pty Ltd.	100	100	Australia	December	ESS battery sales
LG Energy Solution Technology (Nanjing) Co., Ltd.	100	100	China	December	Automotive battery manufacturing, sales and others
Ultium Cells Holdings LLC (*2)	50	50	USA	December	Automotive battery manufacturing and sales
Ultium Cells LLC (*2)	50	50	USA	December	Automotive battery manufacturing and sales
LG Energy Solution Europe GmbH	100	100	Germany	December	ESS battery sales and others
LG Energy Solution (Taiwan) Ltd.	100	100	Taiwan	December	Mobile battery sales and others
Areumnoori Co., Ltd.	100	100	Korea	December	Facility management and cleaning
LG Energy Solution Fund I LLC	100	100	USA	December	Investment in ventures
LG Energy Solution Vertech Inc.	100	100	USA	December	ESS battery installation service
LG Energy Solution Arizona, Inc.	100	100	USA	December	Mobile battery manufacturing and sales
Baterias De Castilla, S.L.	100	100	Spain	December	Others
L-H Battery Company, Inc	51	51	USA	December	Automotive battery manufacturing and sales
LG Energy Solution India Private Limited	100	100	India	December	Mobile battery sales and others
LG Energy Solution Arizona ESS, Inc.	100	100	USA	December	ESS battery manufacturing and sales
Nextstar Energy Inc.	51	51	Canada	December	Automotive battery manufacturing and sales
LG Energy Solution Fund II LLC	100	100	USA	December	Investment in ventures
HL-GA Battery Company LLC (*5)	50	50	USA	December	Automotive battery manufacturing and sales
LG Energy Solution Japan Co., Ltd. (*3)	100	-	Japan	December	ESS battery sales
PT. HLI Green Power (*4)	50	50	Indonesia	December	Automotive battery manufacturing and sales
Associates and joint ventures:					
Sama Aluminium Co., Ltd. (*6)	10.2	10.2	Korea	December	Aluminum manufacturing, sales and others
Nexpo Co., Ltd. (*7)	19	19	Korea	December	Battery product manufacturing, sales and others
Bricks Capital Management Global Battery Private Equity Fund I (*8)	59.9	59.9	Korea	December	Collective investment institution

LG Energy Solution, Ltd. and its subsidiaries
Notes to the consolidated financial statements
As of and for the years ended December 31, 2024 and 2023

- (*1) LG Energy Solution Michigan Inc. owns 50% of Ultium Cells Holdings LLC and HL-GA Battery Company LLC's shares.
- (*2) The Group does not hold a majority ownership interest in Ultium Cells LLC or Ultium Cells Holdings LLC. According to the arrangement between shareholders, the Group holds the majority of voting rights in the decision-making process of the entity and has the ability to affect the variable returns by engaging in the entity's production and cost management. This implies that the Group exercises control over the entity.
- (*3) During the current period, the Group newly acquired 100% of LG Energy Solution Japan Co., Ltd. for ₩535 million.
- (*4) Although the Group does not hold a majority ownership interest in PT. HLI Green Power, amendments in the shareholder agreement grant the Group holds the majority of voting rights in the decision-making process of the entity and has the ability to affect variable returns by engaging in the entity's production and cost management. Accordingly, PT. HLI Green Power was included as a subsidiary in the consolidated financial statements during the current period.
- (*5) Although the Group does not hold a majority ownership interest in HL-GA Battery Company LLC, amendments in the shareholder agreement grant the Group holds the majority of voting rights in the decision-making process of the entity and has the ability to affect variable returns by engaging in the entity's production and cost management. Accordingly, HL-GA Battery Company LLC was included as a subsidiary in the consolidated financial statements during the current period.
- (*6) Although the ownership in Sama Aluminium Co., Ltd. is less than 20%, the arrangement between shareholders ensures that the Group has the ability to participate in the decision-making process, thus exerting significant influence over the entity. As a result, the entity is classified as an associate.
- (*7) Although the ownership in Nexpo Co., Ltd. is less than 20%, the arrangement between shareholders ensures that the Group has the ability to participate in the decision-making process, thus exerting significant influence over the entity. As a result, the entity is classified as an associate.
- (*8) Although the subsidiary's equity stake in the joint venture exceeds 50%, but since unanimous consent from all equity participants is required for major decisions, the parent company has concluded that it does not control the joint venture. As a result, it has been classified as an investment in an associate.

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1.4 Summarized Financial Information of Subsidiaries, Associates and Joint Ventures

Summarized financial information of subsidiaries, associates and joint ventures (before the elimination of intercompany transactions and adjustments for differences in accounting policies) is as follows (Korean won in millions):

	December 31, 2024			2024	
	Asset	Liability	Asset	Revenue	Operating profit (loss)
Subsidiaries:					
LG Energy Solution (Nanjing) Co., Ltd.	₩ 5,303,278	₩ 1,716,102	₩ 3,587,176	₩ 6,988,862	₩ 909,237
LG Energy Solution Michigan Inc.	8,278,090	3,043,236	5,234,854	776,663	(137,540)
LG Energy Solution Battery (Nanjing) Co., Ltd.	623,352	130,838	492,514	601,150	45,784
LG Energy Solution Wroclaw sp. z o.o.	8,661,372	5,725,145	2,936,227	8,057,038	(126,101)
LG Energy Solution Australia Pty Ltd.	8,454	1,834	6,620	43,069	4,643
LG Energy Solution Technology (Nanjing) Co., Ltd.	1,874,656	416,580	1,458,076	1,685,120	205,252
Ultium Cells Holdings LLC (*)	14,900,212	4,615,112	10,285,100	5,441,539	2,023,262
Ultium Cells LLC	14,900,212	4,615,112	10,285,100	5,441,539	2,023,262
LG Energy Solution Europe GmbH	125,912	61,988	63,924	73,439	7,442
LG Energy Solution (Taiwan) Ltd.	3,086	391	2,695	3,880	253
Areumnoori Co., Ltd.	5,609	2,642	2,967	13,952	939
LG Energy Solution Fund I LLC	41,174	2	41,172	-	(796)
LG Energy Solution Vertech Inc.	623,934	562,449	61,485	584,332	10,817
LG Energy Solution Arizona, Inc.	1,515,226	1,196,642	318,584	-	(2,631)
Baterias De Castilla, S.L.	222	218	4	-	(0)
L-H Battery Company, Inc	4,433,776	598,658	3,835,118	-	(437)
LG Energy Solution India Private Limited	23,187	15,945	7,242	56,517	4,266
LG Energy Solution Arizona ESS, Inc.	276,739	173,820	102,919	-	(220)
Nextstar Energy Inc.	4,069,426	1,103,389	2,966,037	296,389	10,661
LG Energy Solution Fund II LLC	41,201	29	41,172	-	(4,338)
HL-GA Battery Company LLC	1,786,447	187,395	1,599,052	-	192
LG Energy Solution Japan Co., Ltd.	1,267	546	721	1,682	307
PT. HLI Green Power	1,718,258	1,224,395	493,863	598,158	85,464
Associates:					
Sama Aluminium Co., Ltd.	434,260	190,595	243,665	251,738	(9,362)
Nexpo Co., Ltd.	25,056	4,786	20,270	4,218	(1,755)
Bricks Capital Management Global Battery Private Equity Fund I	22,367	22	22,345	-	(8,793)

(*) The entity holds a 100% stake in Ultium Cells LLC and has presented financial information on a consolidated basis.

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	December 31, 2023			2023	
	Asset	Liability	Equity	Revenue	Operating profit (loss)
Subsidiaries:					
LG Energy Solution (Nanjing) Co., Ltd.	₩ 6,095,961	₩ 2,767,084	₩ 3,328,877	₩ 8,563,087	₩ 957,460
LG Energy Solution Michigan Inc.	5,996,818	1,996,826	3,999,992	3,322,352	483,786
LG Energy Solution Battery (Nanjing) Co., Ltd.	797,298	284,067	513,231	1,508,000	116,456
LG Energy Solution Wroclaw sp. z o.o.	9,268,306	6,368,473	2,899,833	13,218,931	104,500
LG Energy Solution Australia Pty Ltd.	10,412	7,121	3,291	24,249	2,500
LG Energy Solution Technology (Nanjing) Co., Ltd.	2,525,636	1,134,555	1,391,081	2,884,171	307,584
Ultium Cells Holdings LLC (*1)	10,075,813	4,322,860	5,752,953	3,068,490	673,318
Ultium Cells LLC	10,075,813	4,322,860	5,752,953	3,068,490	673,318
LG Energy Solution Europe GmbH	164,917	108,939	55,978	174,955	10,367
LG Energy Solution (Taiwan) Ltd.	4,003	1,072	2,931	5,298	347
Areumnoori Co., Ltd.	4,195	2,321	1,874	12,092	251
LG Energy Solution Fund I LLC	34,705	8	34,697	-	(1,069)
LG Energy Solution Vertech Inc.	114,170	73,163	41,007	164,557	4,120
LG Energy Solution Arizona, Inc. (*2)	230,200	32,964	197,236	10,638	9,399
Baterias De Castilla, S.L.	208	204	4	-	-
L-H Battery Company, Inc	1,252,684	192,694	1,059,990	-	(7)
LG Energy Solution India Private Limited	9,373	6,092	3,281	27,342	2,946
LG Energy Solution Arizona ESS, Inc.	41,579	2,023	39,556	-	(62)
Nextstar Energy Inc.	1,276,957	105,166	1,171,791	-	(151)
LG Energy Solution Fund II LLC	20,078	194	19,884	-	(2,839)
HL-GA Battery Company LLC	284,551	-	284,551	-	-
Associates and joint ventures:					
PT. HLI Green Power	1,195,064	760,456	434,608	5,642	(19,534)
Sama Aluminium Co., Ltd.	404,364	152,093	252,271	268,150	3,544
Nexpo Co., Ltd.	12,254	749	11,505	885	(1,071)
Bricks Capital Management Global Battery Private Equity Fund I	21,571	20	21,551	-	(898)

(*) The entity holds a 100% stake in Ultium Cells LLC and has presented financial information on a consolidated basis.

1.5 Information of Subsidiaries Whose Non-Controlling Interests are Important to the Reporting Company

(1) Percentage of ownership held by non-controlling interests and cumulative non-controlling interests as of December 31, 2024 and 2023, and net income (loss) and total comprehensive income (loss) allocated to non-controlling interests for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024	
	Ultium Cells Holdings LLC, etc. (*)	
Cumulative non-controlling interests	₩	9,850,306
Net income allocated to non-controlling interests		1,357,343
Total comprehensive income allocated to non-controlling interests		2,301,860

(*) Nextstar Energy Inc., L-H Battery Company, Inc. and HL-GA Battery Company LLC, PT. HLI Green Power are included and the dividends paid to non-controlling interest for the current period amounted to ₩201,580 million.

	2023	
	Ultium Cells Holdings LLC, etc. (*)	
Cumulative non-controlling interests	₩	4,172,868
Net income allocated to non-controlling interests		400,805
Total comprehensive income allocated to non-controlling interests		442,702

(*) Nextstar Energy Inc., L-H Battery Company, Inc. and HL-GA Battery Company LLC are included and the dividends paid to non-controlling interest for the current period amounted to ₩197,355 million.

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(2) The consolidated statements of financial position of subsidiaries whose non-controlling interests are material to the Group (before the elimination of intercompany transactions) (Korean won in millions):

	2024	
	Ultium Cells Holdings LLC, etc. (*)	
Total assets		
Current assets	₩	5,083,386
Non-current assets		21,824,733
		26,908,119
Total liabilities		
Current liabilities		3,656,668
Non-current liabilities		4,072,281
		7,728,949
Total equity	₩	19,179,170

(*) Nextstar Energy Inc., L-H Battery Company, Inc., and HL-GA Battery Company LLC, PT. HLI Green Power are included.

	2023	
	Ultium Cells Holdings LLC, etc. (*)	
Total assets		
Current assets	₩	3,296,557
Non-current assets		9,593,448
		12,890,005
Total liabilities		
Current liabilities		2,094,330
Non-current liabilities		2,526,390
		4,620,720
Total equity	₩	8,269,285

(*) Nextstar Energy Inc., L-H Battery Company, Inc. and HL-GA Battery Company LLC are included.

(3) The consolidated statements of comprehensive income of subsidiaries whose non-controlling interests are material to the Group (before the elimination of intercompany transactions) (Korean won in millions):

	2024	
	Ultium Cells Holdings LLC, etc. (*)	
Revenue	₩	6,336,086
Operating profit		2,119,142

(*) Nextstar Energy Inc., L-H Battery Company, Inc., HL-GA Battery Company LLC and PT. HLI Green Power are included.

	2023	
	Ultium Cells Holdings LLC, etc. (*)	
Revenue	₩	3,068,490
Operating profit		673,160

(*) Nextstar Energy Inc., L-H Battery Company, Inc. and HL-GA Battery Company LLC are included.

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(4) The consolidated statements of cash flows of subsidiaries whose non-controlling interests are material to the Group for the years ended December 31, 2024 and 2023, are as follows (before the elimination of intercompany transactions) (Korean won in millions):

	2024	
	Ultium Cells Holdings LLC, etc. (*)	
Cash flows from operating activities	₩	1,715,587
Cash flows from investing activities		(7,723,351)
Cash flows from financing activities		6,381,260
Effects of exchange rate changes on cash and cash equivalents		281,142
Increase in cash and cash equivalents		654,638
Cash and cash equivalents at the beginning of the period		1,556,309
Cash and cash equivalents at the end of the period	₩	2,210,947

(*) Nextstar Energy Inc., L-H Battery Company, Inc., HL-GA Battery Company LLC and PT. HLI Green Power are included.

	2023	
	Ultium Cells Holdings LLC, etc. (*)	
Cash flows from operating activities	₩	369,577
Cash flows from investing activities		(4,999,432)
Cash flows from financing activities		5,592,316
Effects of exchange rate changes on cash and cash equivalents		18,190
Increase in cash and cash equivalents		980,651
Cash and cash equivalents at the beginning of the period		515,833
Cash and cash equivalents at the end of the period	₩	1,496,484

(*) Nextstar Energy Inc., L-H Battery Company, Inc. and HL-GA Battery Company LLC are included.

1.6 Changes in Scope for Consolidation

New subsidiaries included in the consolidated financial statements for the year ended December 31, 2024, are as follows:

	Reason for the inclusion
LG Energy Solution Japan Co., Ltd.	Incorporated during the current period
PT. HLI Green Power	Change in the shareholder agreement during the current period

2. BASIS OF CONSOLIDATION AND MATERIAL ACCOUNTING POLICIES:

2.1 Basis of Preparation

The Parent Company and its subsidiaries (the “Group”) have prepared the consolidated financial statements in accordance with the Korean International Financial Reporting Standards (“K-IFRSs”).

The principal accounting policies are set out below. Except for the effect of the amendments to K-IFRSs and new interpretations set out below, the principal accounting policies used to prepare the consolidated financial statements as of and for the year ended December 31, 2024, are consistent with the accounting policies used to prepare the consolidated financial statements as of and for the year ended December 31, 2023.

The directors have, at the time of approving the financial statements, a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Thus, they continue to adopt the going-concern basis of accounting in preparing the financial statements.

2.2 Changes in Accounting Policies and Disclosures

1) New and amended K-IFRSs and new interpretations that are effective for the current year:

- K-IFRS 1001 *Presentation of Financial Statements* – Classification of Liabilities as Current or Non-Current (Amendments)

The amendments clarify that the classification of liabilities as current or non-current is based on rights that are in existence at the end of the reporting period; specify that classification is unaffected by expectations about whether an entity will exercise its right to defer settlement of a liability; explain that rights are in existence if covenants are complied with at the end of the reporting period; and introduce a definition of ‘settlement’ to make clear that settlement refers to the transfer to the counterparty of cash, equity instruments, other assets or services.

- K-IFRS 1001 *Presentation of Financial Statements* – Non-Current Liabilities with Covenants (Amendments)

The amendments specify that only covenants that an entity is required to comply with on or before the end of the reporting period affect the entity’s right to defer settlement of a liability for at least 12 months after the reporting date.

The amendments also specify that the right to defer settlement of a liability for at least 12 months after the reporting date is not affected if an entity only has to comply with a covenant after the reporting period. However, if the entity’s right to defer settlement of a liability is subject to the entity complying with covenants within 12 months after the reporting period, an entity discloses information that enables users of financial statements to understand the risk of the liabilities becoming repayable within 12 months after the reporting period. This would include information about the covenants (including the nature of the covenants and when the entity is required to comply with them), the carrying amount of related liabilities and facts and circumstances, if any, that indicate that the entity may have difficulties complying with the covenants.

- K-IFRS 1007 *Statement of Cash Flows* and K-IFRS 1107 *Financial Instruments: Disclosures* – Supplier Finance Arrangements (Amendments)

The amendments add a disclosure objective to K-IFRS 1007 stating that an entity is required to disclose information about its supplier finance arrangements that enables users of financial statements to assess the effects of those arrangements on the entity’s liabilities and cash flows. In addition, K-IFRS 1117 was amended to add supplier finance arrangements as an example within the requirements to disclose information about an entity’s exposure to concentration of liquidity risk (see Note 5.(3)).

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- K-IFRS 1116 *Leases* – Lease Liability in a Sale and Leaseback (Amendments)

The amendments to K-IFRS 1116 add subsequent measurement requirements for sale and leaseback transactions that satisfy the requirements in K-IFRS 1115 to be accounted for as a sale. The amendments require the seller-lessee to determine ‘lease payment’ or ‘revised lease payments’ such that the seller-lessee does not recognize a gain or loss that relates to the right of use retained by the seller-lessee after the commencement date.

2) At the date of authorization of these consolidated financial statements, the Group has not applied the following new and revised K-IFRSs that have been issued, but are not yet effective:

- K-IFRS 1021 *The Effects of Changes in Foreign Exchange Rates* – Lack of Exchangeability

The amendments specify how to assess whether a currency is exchangeable and how to determine the exchange rate when it is not. The amendments state that a currency is exchangeable into another currency when an entity is able to obtain the other currency within a time frame that allows for a normal administrative delay and through a market or exchange mechanism in which an exchange transaction would create enforceable rights and obligations.

The amendments are effective for annual reporting periods beginning on or after January 1, 2025, with earlier application permitted. An entity is not permitted to apply the amendments retrospectively. Instead, an entity is required to apply the specific transition provisions included in the amendments.

- K-IFRS 1109 *Financial Instruments* and K-IFRS 1107 *Financial Instruments: Disclosures* – Classification and Measurement Requirements of Financial Instruments

The amendments clarify the conditions related to the discharge of a financial liability before the settlement date when settling such financial liabilities using an electronic payment system. They further specify an interest feature, a contingent feature, financial assets with non-recourse features and contractually linked instruments that should be considered in assessing whether contractual cash flows of a financial asset are consistent with a basic lending arrangement. Furthermore, the amendments include additional disclosure requirements for investments in equity instruments designated at fair value through other comprehensive income (“FVOCI”) and contractual terms that could change the timing or amount of contractual cash flows. The amendments are applied retrospectively for annual reporting periods beginning on or after January 1, 2026, with earlier application permitted.

- K-IFRS 1109 *Financial Instruments* – Derecognition of lease liabilities and Transaction price

The amendments clarify that when a lessee has determined that a lease liability has been extinguished in accordance with K-IFRS 1109, the lessee is required to recognize any resulting gain or loss in profit or loss. Additionally, the amendments have replaced ‘their transaction price (as defined in K-IFRS 1115)’ in K-IFRS 1109:5.1.3 with ‘the amount determined by applying K-IFRS 1115’ to remove an inconsistency between K-IFRS 1109 and the requirements in K-IFRS 1115. The amendments are effective for annual reporting periods beginning on or after January 1, 2026, with earlier application permitted.

- K-IFRS 1110 *Consolidated Financial Statements* – Determination of ‘De Facto Agent’

The amendments have amended K-IFRS 10:B74 to use less conclusive language and to clarify that the relationship described in K-IFRS 10:B74 is just one example of a circumstance in which judgement is required to determine whether a party is acting as a de facto agent. The amendments are effective for annual reporting periods beginning on or after January 1, 2026, with earlier application permitted.

- K-IFRS 1101 *First-Time adoption of Korean International Financial Reporting Standards* – Hedging Accounting by a First-Time Adopter

The amendments have improved the consistency of the wording of K-IFRS 1101:B6 with the requirements for hedge accounting in K-IFRS 1109 and added cross-references to K-IFRS 1109:6.4.1 to improve the understandability of K-IFRS 1101. The amendments are effective for annual reporting periods beginning on or after January 1, 2026, with earlier application permitted.

- K-IFRS 1107 *Financial Instruments: Disclosures* – Gain or Loss on Derecognition

The amendments have updated the obsolete cross-reference in K-IFRS 1107:B38 and aligned the wording of this paragraph with the terms used in K-IFRSs. The amendments are effective for annual reporting periods beginning on or after January 1, 2026, with earlier application permitted.

- K-IFRS 1007 *Statement of Cash Flows: Cost Method*

The amendments have replaced the term ‘cost method’ with ‘at cost’ in K-IFRS 1007:37. The amendments are effective for annual reporting periods beginning on or after January 1, 2026, with earlier application permitted.

The Group does not anticipate that the application of the enactment and amendments will have a significant impact on its separate financial statements.

2.3 Basis of Consolidation

The consolidated financial statements incorporate the financial statements of the parent company and entities controlled by the Group made up to December 31 each year. Control is achieved when the Group 1) has the power over the investee; 2) is exposed, or has rights, to variable returns from its involvement with the investee; and 3) has the ability to use its power to affect its returns. The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

When the Group has less than a majority of the voting rights of an investee, it considers that it has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Group considers all relevant facts and circumstances in assessing whether or not the Group's voting rights in an investee are sufficient to give it power, including:

- the size of the Group's holding of voting rights relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the Group, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that the Group has, or does not have, the current ability to direct the relevant activities at the time that decisions need to be made, including voting patterns at previous shareholders' meetings.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, the results of subsidiaries acquired, or disposed of, during the year are included in profit or loss from the date the Group gains control until the date when the Group ceases to control the subsidiary. Profit or loss and each component of other comprehensive income are attributed to the owners of the Parent Company and to the non-controlling interests. Total comprehensive income of the subsidiaries is attributed to the owners of the Parent Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between the members of the Group are eliminated on consolidation

Non-controlling interests in subsidiaries are identified separately from the Group's equity therein. Those interests of non-controlling shareholders that are present ownership interests entitling their holders to a proportionate share of net assets upon liquidation may initially be measured at 1) fair value or 2) at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets. The choice of measurement is made on an acquisition-by-acquisition basis. Other non-controlling interests are initially measured at fair value. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition, plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's interests in subsidiaries that do not result in a loss of control are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted, and the fair value of the consideration paid or received is recognized directly in equity and attributed to owners of the Parent Company.

When the Group loses control of a subsidiary, a gain or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), less liabilities of the subsidiary and any non-controlling interests. All amounts previously recognized in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e., reclassified to profit or loss or transferred to another category of equity as required/permitted by applicable K-IFRSs. The fair value of any investment retained in the former subsidiary at the date when control is lost is recognized as the fair value on initial recognition for subsequent accounting under K-IFRS 1109 *Financial Instruments*, when applicable, or the cost on initial recognition of an investment in an associate or a joint venture.

2.4 Business Combination

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interest issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with K-IFRS 1012 *Income Taxes* and K-IFRS 1019 *Employee Benefits*, respectively;
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with K-IFRS 1102 *Share-Based Payment* at the acquisition date; and
- assets (or disposal groups) that are classified as held for sale in accordance with K-IFRS 1105 *Non-Current Assets Held for Sale and Discontinued Operations* are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree and c) the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of a) the consideration transferred, b) the amount of any non-controlling interests in the acquiree and c) the fair value of the acquirer's previously held interest in the acquiree (if any); the excess is recognized immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Group in a business combination includes contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Other contingent consideration is remeasured to fair value at subsequent reporting dates with changes in fair value recognized in profit or loss.

When a business combination is achieved in stages, the Group's previously held interests (including joint operations) in the acquired entity are remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognized as of that date.

2.5 Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence and that is neither a subsidiary nor an interest in a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

A joint venture is a joint arrangement, whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The results and assets and liabilities of associates or joint ventures are incorporated in these financial statements using the equity method of accounting, except when the investment is classified as held for sale; in which case, it is accounted for in accordance with K-IFRS 1105. Under the equity method, an investment in an associate or a joint venture is recognized initially in the consolidated statements of financial position at cost and adjusted thereafter to recognize the Group's share of the profit or loss and other comprehensive income of the associate or joint venture. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognizing its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognized as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognized immediately in profit or loss in the period in which the investment is acquired.

If there is objective evidence that the Group's net investment in an associate or joint venture is impaired, the requirements of K-IFRS 1036 are applied to determine whether it is necessary to recognize any impairment loss with respect to the Group's investment. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with K-IFRS 1036 as a single asset by comparing its recoverable amount (higher of value in use and fair value, less costs of disposal) with its carrying amount. Any impairment loss recognized is not allocated to any asset, including goodwill, that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognized in accordance with K-IFRS 1036 to the extent that the recoverable amount of the investment subsequently increases.

The Group discontinues the use of the equity method from the date when the investment ceases to be an associate or a joint venture. When the Group retains an interest in the former associate or a joint venture and the retained interest is a financial asset, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition in accordance with K-IFRS 1109. The difference between the carrying amount of the associate or a joint venture at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate or a joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognized in other comprehensive income in relation to that associate on the same basis as would be required if that associate had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognized in other comprehensive income by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) when the associate or joint venture is disposed of.

When the Group reduces its ownership interest in an associate or a joint venture, but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognized in other comprehensive income relating to that reduction in ownership interest if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities

When a Group entity transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognized in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

The Group applies K-IFRS 1109, including the impairment requirements, to long-term interests in an associate or joint venture to which the equity method is not applied and which form part of the net investment in the investee. Furthermore, in applying K-IFRS 1109 to long-term interests, the Group does not take into account adjustments to their carrying amount required by K-IFRS 1028 *Investments in Associates and Joint Ventures* (i.e., adjustments to the carrying amount of long-term interests arising from the allocation of losses of the investee or assessment of impairment in accordance with K-IFRS 1028).

2.6 Operating Segment

Information about each operating segment is reported in a manner consistent with the business segment reporting provided to the chief operating decision-maker (see Note 32). The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, and the Group has identified the board of directors as the chief operating decision-maker.

2.7 Revenue Recognition

(1) Identify performance obligation

With regard to the contract for selling products to the customer, the Group identifies the services provided separately to the customer as a different performance obligation. When the Group makes a sales contract with the customer, the standard warranty period for each product and customer is set up considering the legal warranty period. Even though the standard warranty period has been expired, the warranties are recognized as a revenue and is identified as a consolidated performance obligation when the Group provides additional warranties for the quality of product or when the customer has an option to purchase additional warranties separately.

(2) A performance obligation satisfied at a point in time

The revenue from the sale of goods is recognized at the time they are delivered to the customer. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the customer and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed or the Group has objective evidence that all criteria for acceptance have been satisfied.

The goods are often sold with volume discounts, and it is the Group's policy to sell its products to the customer with a right of return. Accumulated experience is used to estimate the discounts and the refund, and the volume discounts is calculated based on the periodical forecast sales. The warranty provision for the sales and refund is reasonably estimated and recognized properly.

(3) Providing ESS battery installation services

The Group recognizes revenue over time for services provided, including ESS battery installation services. In order to measure the services provided with reliability, the Group determines the progress of completion based on the nature of the transaction, using reliable measurement methods such as assessing the degree of work performed, the ratio of cumulative service performed to the total estimated service volume, and the ratio of cumulative costs incurred to the total estimated costs, and others.

(4) Significant financing component

As a practical expedient, the Group need not adjust the promised amount of consideration for the effects of a significant financing component as the period between when the entity transfers a promised good or service to a customer and when the customer pays for that good or service is generally one year or less.

2.8 Lease

(1) The Group as lessee

The Group assesses whether a contract is, or contains, a lease at inception of the contract. The Group recognizes a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low-value assets (such as tablets and personal computers, small items of office furniture and telephones). For these leases, the Group recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate.

The incremental borrowing rate depends on the term, currency and start date of the lease, and is determined based on a series of inputs, including the risk-free rate, based on government bond rates; a country-specific risk adjustment; a credit risk adjustment based on bond yields; and an entity-specific adjustment when the risk profile of the entity that enters into the lease is different to that of the Group and the lease does not benefit from a guarantee from the Group.

Lease payments included in the measurement of the lease liability comprise:

- Fixed-lease payments (including in-substance fixed payments), less any lease incentives receivable;
- Variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the lessee under residual value guarantees;
- The exercise price of purchase options if the lessee is reasonably certain to exercise the options; and
- Payments of penalties for terminating the lease if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is included in the measurement of the 'Borrowings' comprise.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option; in which case, the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.
- The lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value; in which case, the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate; in which case, a revised discount rate is used).
- A lease contract is modified and the lease modification is not accounted for as a separate lease; in which case, the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, plus any lease incentives received and any initial direct costs. They are subsequently measured at cost, less accumulated depreciation and impairment losses.

Whenever the Group incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognized and measured under K-IFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets*. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the right-of-use asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are included in the measurement of the 'Property, plant and equipment' comprise.

The Group applies K-IFRS 1036 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the 'Property, Plant and Equipment' policy.

Variable rents that do not depend on an index or rate are not included in the measurement the lease liability and the right-of-use asset. The related payments are recognized as an expense in the period in which the event or condition that triggers those payments occurs and are included in profit or loss.

As a practical expedient, K-IFRS 1116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Group has not used this practical expedient. For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

(2) The Group as lessor

The Group enters into lease agreements as a lessor with respect to some of its investment properties. The Group also rents equipment to retailers necessary for the presentation and customer fitting and testing of footwear and equipment manufactured by the Group.

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

When the Group is an intermediate lessor, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

Subsequent to initial recognition, the Group regularly reviews the estimated unguaranteed residual value and applies the impairment requirements of K-IFRS 1109, recognizing an allowance for expected credit losses on the finance lease receivables.

Finance lease income is calculated with reference to the gross carrying amount of the lease receivables, except for credit-impaired financial assets for which interest income is calculated with reference to their amortized cost (i.e., after a deduction of the loss allowance).

When a contract includes both lease and non-lease components, the Group applies K-IFRS 1115 to allocate the consideration under the contract to each component.

2.9 Foreign exchange

The individual financial statements of each group entity are presented in the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each group entity are expressed in Korean won, which is the functional currency of the entity and the presentation currency for the consolidated financial statements.

In preparing the consolidated financial statements of the Group entities, transactions in currencies other than the entity's functional currency (foreign currencies) are recognized at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are recognized in profit or loss in the period in which they arise, except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks; and
- exchange differences on monetary items receivable from, or payable to, a foreign operation for which settlement is neither planned nor likely to occur (therefore forming part of the net investment in the foreign operation), which are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal or partial disposal of the net investment.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Company's foreign operations are expressed in Korean won using exchange rates prevailing at the end of the reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during that period; in which case, the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in a foreign exchange translation reserve (attributed to non-controlling interests, as appropriate).

On the disposal of a foreign operation (i.e., a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the accumulated exchange differences in respect of that operation attributable to the owners of the Company are reclassified to profit or loss. Any exchange differences that have previously been attributed to non-controlling interests are derecognized, but they are not reclassified to profit or loss.

In the case of a partial disposal (i.e., no loss of control) of a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences is reattributed to non-controlling interests in equity and are not recognized in profit or loss. For all other partial disposals (i.e., partial disposals of associates or joint arrangements that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate. Exchange differences arising are recognized in other comprehensive income.

2.10 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

To the extent that variable rate borrowings are used to finance a qualifying asset and are hedged in an effective cash flow hedge of interest rate risk, the effective portion of the derivative is recognized in other comprehensive income and reclassified to profit or loss when the qualifying asset impacts profit or loss. To the extent that fixed-rate borrowings are used to finance a qualifying asset and are hedged in an effective fair value hedge of interest rate risk, the capitalized borrowing costs reflect the hedged interest rate.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

2.11 Government grants

Government grants are not recognized until there is a reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

Government grants related to assets are presented in the consolidated statements of financial position by deducting the grant from the carrying amount of the asset (including property, plant and equipment). The related grant is recognized in profit or loss over the life of a depreciable asset as a reduced depreciation expense.

Government grants related to revenue are recognized as income over the corresponding period in accordance with systematic criteria to match against the costs intended to preserve. Also, government grants received as immediate financial support to the Group, without offsetting against previously incurred costs or losses and without anticipation of future-related costs, are recognized as current income when the right to receive such grants arises.

Government grants toward staff retraining costs are recognized as income over the periods necessary to match them with the related costs and are deducted in reporting the related expense.

2.12 Retirement benefit costs and termination benefits

Payments to defined contribution retirement benefit plans are recognized as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement benefit plans, the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each annual reporting period. Remeasurements comprising actuarial gains and losses, the effect of the asset ceiling (if applicable) and the return on plan assets (excluding interest) are recognized immediately in the consolidated statements of financial position with a charge or credit to the consolidated statements of comprehensive income in the period in which they occur. Remeasurements recognized in the consolidated statements of comprehensive income are not reclassified. Past service cost is recognized in profit or loss when the plan amendment or curtailment occurs, or when the Group recognizes related restructuring costs or termination benefits, if earlier. Gains or losses on settlement of a defined benefit plan are recognized when the settlement occurs.

Net interest is calculated by applying a discount rate to the net defined benefit liability or asset. Defined benefit costs are split into three categories:

- service costs, which include current service cost, past service cost and gains and losses on curtailments and settlements;
- net interest expense or income; and
- remeasurements.

Service costs and net interest expense or income are recognized within the cost of sales and selling and administrative expenses and the remeasurement component in other comprehensive income. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognized in the consolidated statements of financial position represents the actual deficit or surplus in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

2.13 Taxation

Income tax expense represents the sum of the current tax and deferred tax expense.

(1) Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the consolidated statements of profit or loss and comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted, or substantively enacted, by the end of the reporting period.

A provision is recognized for those matters for which the tax determination is uncertain, but it is considered probable that there will be a future outflow of funds to a tax authority. The provisions are measured at the best estimate of the amount expected to become payable. The assessment is based on the judgement of tax professionals within the Group supported by previous experience in respect of such activities and, in certain cases, based on specialist independent tax advice.

(2) Deferred tax

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the liability method. Deferred tax liabilities are generally recognized for all taxable temporary differences. Deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination or for transactions that give rise to equal taxable and deductible temporary differences) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference, and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences, and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

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Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted, or substantively enacted, by the end of the reporting period. Such tax rates are the average rates that are expected to apply to taxable income deducting unused tax losses. In case a forecast taxable income is expected to fall below zero, the Group applies the lowest rate in the range of future expected progressive tax rates. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset if, and only if, the Group has a legally enforceable right to offset current tax assets against current tax liabilities, and the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities, which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

For the purpose of measuring deferred tax liabilities and deferred tax assets for investment properties that are measured using the fair value model, the carrying amounts of such properties are presumed to be recovered entirely through sale, unless the presumption is rebutted. The presumption is rebutted when the investment property is depreciable and is held within a business model, whose objective is to consume substantially all of the economic benefits embodied in the investment properties over time, rather than through sale.

(3) Current and deferred taxes for the year

Current and deferred taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity; in which case, the current and deferred taxes are also recognized in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

2.14 Property, plant and equipment

Property, plant and equipment are stated at cost, less subsequent accumulated depreciation and accumulated impairment losses. The cost of an item of property, plant and equipment is directly attributable to their purchase or construction, which includes any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. It also includes the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent costs are recognized in the carrying amount of an asset or as a separate asset if it is probable that future economic benefits associated with the assets will flow into the Group and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

The Group does not depreciate land. Depreciation expense is computed using the straight-line method based on the estimated useful lives of the assets as follows:

	<u>Useful lives</u>
Buildings	25 – 50 years
Structures	6 – 50 years
Machinery	6 – 15 years
Others	1 – 12 years

If each part of an item of property, plant and equipment has a cost that is significant in relation to the total cost of the item, it is depreciated separately.

The Group reviews the depreciation method; the estimated useful lives; and the residual values of property, plant and equipment at the end of each annual reporting period. If expectations differ from previous estimates, the changes are accounted for as a change in an accounting estimate.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising from derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

2.15 Investment property

Investment properties are properties held to earn rentals and/or for capital appreciation (including property under construction for such purposes). Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are reported at cost, less accumulated depreciation and accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of an asset, or as a separate asset, if it is probable that future economic benefits associated with the assets will flow into the Group and the cost of an asset can be measured reliably. Routine maintenance and repairs are expensed as incurred.

While land is not depreciated, all other investment property is depreciated based on the straight-line method.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An investment property is derecognized upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising from derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognized.

2.16 Intangible assets

(1) Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at cost, less accumulated amortization and accumulated impairment losses. Amortization is recognized on a straight-line basis over their estimated useful lives. The estimated useful life and amortization method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are carried at cost, less accumulated impairment losses.

	<u>Useful lives</u>
Software	6 years
Development costs	6 years
Industrial property rights	1 – 10 years
Others	6 – 10 years

(2) Internally generated intangible assets – research and development expenditure

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

An internally generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if, all of the following conditions have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Expenditure arising from development (or from the development phase of an internal project) is recognized as an intangible asset if, and only if, the development project is designed to produce new, or substantially improved, products, and the Group can demonstrate the technical and economic feasibility and measure reliably the resources attributable to the intangible asset during its development.

The amount initially recognized for internally generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria. Where no internally generated intangible asset can be recognized, development expenditure is recognized in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally generated intangible assets are reported at cost, less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

(3) Intangible assets acquired in a business combination

Intangible assets that are acquired in a business combination are recognized separately from goodwill and are initially recognized at their fair value at the acquisition date (which is regarded as their cost). Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost, less accumulated amortization and accumulated impairment losses on the same basis as intangible assets that are acquired separately.

(4) Derecognition of intangible assets

An intangible asset is derecognized at disposal, or when no future economic benefits are expected from its use. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the asset is derecognized.

(5) Patents and trademarks

Patents and trademarks are measured initially at purchase cost and are amortized on a straight-line basis over their estimated useful lives.

2.17 Impairment of tangible and intangible assets other than goodwill

At each reporting date, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise, they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value, less costs to sell or value in use. If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or the cash-generating unit) is reduced to its recoverable amount and the reduced amount is recognized in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or the cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

2.18 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost of inventories, except for those in transit measured using specific identification of their individual costs, is measured under the weighted-average method and consists of the purchase price, cost of conversion and other costs incurred in bringing the inventories to their present location and condition. Net realizable value represents the estimated selling price for inventories, less all estimated costs of completion and costs necessary to make the sale.

When inventories are sold, the carrying amount of those inventories is recognized as an expense (cost of sales) in the period in which the related revenue is recognized. The amount of any write-down of inventories to net realizable value and all losses of inventories is recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, is recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

2.19 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event; it is probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material). The discount rate used is a pretax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage is recognized in profit or loss as borrowing cost.

When some, or all, of the expenditure required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

At the end of each reporting period, the remaining provision balance is reviewed and assessed to determine if the current best estimate is being recognized. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period.

2.20 Cash and cash equivalents

In the consolidated statements of financial position, cash and cash equivalents are comprised of cash (i.e., cash on hand and on-demand deposits) and cash equivalents. Cash equivalents are short-term (generally with original maturity of three months or less), highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. Cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes.

Bank balances for which use by the Group is subject to third-party contractual restrictions are included as part of cash, unless the restrictions result in a bank balance no longer meeting the definition of cash. If the contractual restrictions to use the cash extend beyond 12 months after the end of the reporting period, the related amounts are classified as non-current in the consolidated statements of financial position.

For the purposes of the consolidated statements of cash flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts, which are repayable on demand and form an integral part of the Group's cash management. Such overdrafts are presented as short-term borrowings in the consolidated statements of financial position.

2.21 Financial Instruments

Financial assets and financial liabilities are recognized in the Group's consolidated statements of financial position when the Group becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value, except for trade receivables that do not have significant financing components, which are measured at the transaction price. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss ("FVPL")) are added to, or deducted from, the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVPL are recognized immediately in profit or loss.

2.22 Financial assets

All regular-way purchases or sales of financial assets are recognized and derecognized on a trade-date basis. Regular-way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

All recognized financial assets are measured subsequently in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

(1) Classification of financial assets

Debt instruments that meet the following conditions are measured subsequently at amortized cost:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments that meet the following conditions are measured subsequently at FVOCI:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

By default, all other financial assets are measured subsequently at FVPL.

Despite the foregoing, the Group may make the following irrevocable election/designation at initial recognition of a financial asset:

- the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met (see (1-3) below); and
- the Group may irrevocably designate a debt investment that meets the amortized cost or FVOCI criteria as measured at FVPL if doing so eliminates or significantly reduces an accounting mismatch (see (1-4) below).

1-1) Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period. For financial assets other than purchased or originated credit-impaired financial assets (i.e., assets that are credit-impaired on initial recognition), the effective interest rate is the rate that exactly discounts estimated future cash flows (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts), excluding expected credit losses, through the expected life of the debt instrument or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition. For purchased or originated credit-impaired financial assets, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including expected credit losses, to the amortized cost of the debt instrument on initial recognition.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition, minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting for any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured subsequently at amortized cost and at FVOCI. For financial assets other than purchased or originated credit-impaired financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognized by applying the effective interest rate to the amortized cost of the financial asset. If, in subsequent reporting periods, the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognized by applying the effective interest rate to the gross carrying amount of the financial asset.

For purchased or originated credit-impaired financial assets, the Group recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit impaired.

Interest income is recognized in profit or loss and is included in the "finance income" line item.

1-2) Debt instruments classified as at FVOCI

The corporate bonds held by the Group are classified as at FVOCI. Fair value is determined in the manner described in Note 50. The corporate bonds are initially measured at fair value, plus transaction costs. Subsequently, changes in the carrying amount of these corporate bonds as a result of foreign exchange gains and losses, impairment gains or losses, and interest income calculated using the effective interest method are recognized in profit or loss. The amounts that are recognized in profit or loss are the same as the amounts that would have been recognized in profit or loss if these corporate bonds had been measured at amortized cost. All other changes in the carrying amount of these corporate bonds are recognized in other comprehensive income and accumulated under the heading of investments revaluation reserve. When these corporate bonds are derecognized, the cumulative gains or losses previously recognized in other comprehensive income are reclassified to profit or loss.

1-3) Equity instruments designated as at FVOCI

On initial recognition, the Group may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at FVOCI. Designation at FVOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognized by an acquirer in a business combination.

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Investments in equity instruments at FVOCI are initially measured at fair value, plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognized in other comprehensive income and accumulated in the investments revaluation reserve. The cumulative gain or loss is not reclassified to profit or loss on disposal of the equity investments; instead, it is transferred to retained earnings.

Dividends on these investments in equity instruments are recognized in profit or loss in accordance with K-IFRS 1109, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the 'Finance income' line item in profit or loss.

The Group designated all investments in equity instruments that are not held for trading as at FVOCI on initial recognition.

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling it in the near term;
- on initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

1-4) Financial assets at FVPL

Financial assets that do not meet the criteria for being measured at amortized cost or FVOCI are measured at FVPL. Specifically:

- Investments in equity instruments are classified as at FVPL, unless the Group designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at FVOCI on initial recognition (see (1-3) above).
- Debt instruments that do not meet the amortized cost criteria or the FVOCI criteria (see (1-1) and (1-2) above) are classified as at FVPL. In addition, debt instruments that meet either the amortized cost criteria or the FVOCI criteria may be designated as at FVPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency (so-called 'accounting mismatch') that would arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases. The Group has not designated any debt instruments as at FVPL.

Financial assets at FVPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship (see hedge accounting policy). The net gain or loss recognized in profit or loss includes interest earned on the financial asset and is included in the 'financial income' line item. Fair value is determined in the manner described in Note 3.

(2) Foreign exchange gains and losses

The carrying amount of financial assets that are denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of each reporting period. Specifically;

- for financial assets measured at amortized cost that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'Other non-operating income (expenses)' line item;
- for debt instruments measured at FVOCI that are not part of a designated hedging relationship, exchange differences on the amortized cost of the debt instrument are recognized in profit or loss in the 'Other non-operating income (expenses)' line item. As the foreign currency element recognized in profit or loss is the same as if it was measured at amortized cost, the residual foreign currency element based on the translation of the carrying amount (at fair value) is recognized in other comprehensive income in the investments revaluation reserve;
- for financial assets measured at FVPL that are not part of a designated hedging relationship, exchange differences are recognized in profit or loss in the 'Other non-operating income (expenses)' line item as part of the fair value gain or loss; and
- for equity instruments measured at FVOCI, exchange differences are recognized in other comprehensive income in the investments revaluation reserve.

(3) Impairment of financial assets

The Group recognizes a loss allowance for expected credit losses on investments in debt instruments that are measured at amortized cost or at FVOCI, lease receivables, trade receivables and contract assets, as well as on financial guarantee contracts. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since the initial recognition of the respective financial instrument.

The Group always recognizes lifetime ECL for trade receivables, contract assets and lease receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience; adjusted for factors that are specific to the debtors; general economic conditions; and an assessment of both the current and the forecast direction of conditions at the reporting date, including time value of money, where appropriate.

For all other financial instruments, the Group recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

(4) Measurement and recognition of expected credit losses

The measurement of expected credit losses is a function of the probability of default, loss-given default (i.e., the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss-given default is based on historical data adjusted by forward-looking information, as described above. As for the exposure at default, for financial assets, this is represented by the assets' gross carrying amount at the reporting date; for financial guarantee contracts, the exposure includes the amount of guaranteed debt that has been drawn down as of the reporting date, together with any additional guaranteed amounts expected to be drawn down by the borrower in the future by default date determined based on historical trend, the Group's understanding of the specific future financing needs of the debtors and other relevant forward-looking information.

For financial assets, the expected credit loss is estimated as the difference between all contractual cash flows that are due to the Group in accordance with the contract and all the cash flows that the Group expects to receive, discounted at the original effective interest rate. For a lease receivable, the cash flows used for determining the expected credit losses are consistent with the cash flows used in measuring the lease receivable in accordance with K-IFRS 1116 *Leases*.

For a financial guarantee contract, as the Group is required to make payments only in the event of a default by the debtor in accordance with the terms of the instrument that is guaranteed, the expected loss allowance is the expected payments to reimburse the holder for a credit loss that it incurs, less any amounts that the Group expects to receive from the holder, the debtor or any other party.

If the Group has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Group measures the loss allowance at an amount equal to 12-month ECL at the current reporting date, except for assets for which simplified approach was used.

The Group recognizes an impairment gain or loss in profit or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account, except for investments in debt instruments that are measured at FVOCI, for which the loss allowance is recognized in other comprehensive income and accumulated in the investment revaluation reserve, and does not reduce the carrying amount of the financial asset in the consolidated statements of financial position.

(5) Derecognition of financial assets

The Group derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognize the financial asset and also recognizes collateralized borrowing for the proceeds received.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on the derecognition of an investment in a debt instrument classified as at FVOCI, the cumulative gain or loss previously accumulated in the investment's revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument, which the Group has elected on initial recognition to measure at FVOCI, the cumulative gain or loss previously accumulated in the investment's revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

2.23 Financial liabilities and equity instruments

(1) Financial liabilities

All financial liabilities are measured subsequently at amortized cost using the effective interest method or at FVPL. However, financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies, and financial guarantee contracts issued by the Group are measured in accordance with the specific accounting policies set out below.

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1-1) Financial liabilities at FVPL

Financial liabilities are classified as at FVPL when the financial liability is (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) it is designated as at FVPL.

A financial liability is classified as held for trading if either:

- it has been acquired principally for the purpose of repurchasing it in the near term;
- on initial recognition, it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at FVPL upon initial recognition if either:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise;
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and K-IFRS 1109 permits the entire combined contract to be designated as at FVPL.

Financial liabilities at FVPL are measured at fair value, with any gains or losses arising on changes in fair value recognized in profit or loss to the extent that they are not part of a designated hedging relationship (see Hedge accounting policy). The net gain or loss recognized in profit or loss incorporates any interest paid on the financial liability and is included in the 'financial costs' line item in profit or loss.

However, for financial liabilities that are designated as at FVPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of liability is recognized in profit or loss. Changes in fair value attributable to a financial liability's credit risk that is recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Gains or losses on financial guarantee contracts issued by the Group that are designated by the Group as FVPL are recognized in profit or loss.

1-2) Financial liabilities measured subsequently at amortized cost

Financial liabilities that are not (i) contingent consideration of an acquirer in a business combination, (ii) held for trading or (iii) designated as at FVPL are measured subsequently at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the amortized cost of a financial liability.

(2) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

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Financial guarantee contract liabilities are measured initially at their fair values and, if not designated as at FVPL and do not arise from a transfer of an asset, are measured subsequently at the higher of:

- the amount of the loss allowance determined in accordance with K-IFRS 1109; and
- the amount recognized initially less, where appropriate, cumulative amortization recognized in accordance with the revenue recognition policies set out above.

(3) Foreign exchange gains and losses

For financial liabilities that are denominated in a foreign currency and are measured at amortized cost at the end of each reporting period, the foreign exchange gains and losses are determined based on the amortized cost of the instruments. These foreign exchange gains and losses are recognized in the 'other non-operating income (expenses)' line item in profit or loss for financial liabilities that are not part of a designated hedging relationship. For those that are designated as a hedging instrument for a hedge of foreign currency risk, foreign exchange gains and losses are recognized in other comprehensive income and accumulated in a separate component of equity.

The fair value of financial liabilities denominated in a foreign currency is determined in that foreign currency and translated at the spot rate at the end of the reporting period. For financial liabilities that are measured as at FVPL, the foreign exchange component forms part of the fair value gains or losses and is recognized in profit or loss for financial liabilities that are not part of a designated hedging relationship.

(4) Derecognition of financial liabilities

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, canceled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

When the Group exchanges with the existing lender one debt instrument into another one, with substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Group accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between (1) the carrying amount of the liability before the modification and (2) the present value of the cash flows after modification should be recognized in profit or loss as the modification gain or loss within other gains and losses.

2.24 Derivative financial instruments

The Group enters into a variety of derivative financial instruments to manage its exposure to interest rate and foreign exchange rate risks, including foreign exchange forward contracts, options and interest rate swaps.

Derivatives are recognized initially at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value on each reporting date. The resulting gain or loss is recognized in profit or loss immediately, unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

A derivative with a positive fair value is recognized as a financial asset, whereas a derivative with a negative fair value is recognized as a financial liability. Derivatives are not offset in the consolidated financial statements, unless the Group has both legally enforceable right and the intention to offset. A derivative is presented as a non-current asset or a non-current liability if the remaining maturity of the instrument is more than 12 months and it is not due to be realized or settled within 12 months. Other derivatives are presented as current assets or current liabilities.

(1) Hedge accounting

The Group designates certain derivatives as hedging instruments in respect of foreign currency risk and interest rate risk in fair value hedges, cash flow hedges or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At the inception of the hedge relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk, which is when the hedging relationships meet all of the following hedge effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument;
- the effect of credit risk does not dominate the value changes that result from that economic relationship; and
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

If a hedging relationship ceases to meet the hedge effectiveness requirement relating to the hedge ratio, but the risk management objective for that designated hedging relationship remains the same, the Group adjusts the hedge ratio of the hedging relationship (i.e., rebalances the hedge) so that it meets the qualifying criteria again.

The Group designates the full change in the fair value of a forward contract (i.e., including the forward elements) as the hedging instrument for all of its hedging relationships involving forward contracts.

The Group designates only the intrinsic value of options for a hedging instrument as a means to hedge risks associated with forecast transactions. Time value changes (i.e., undesignated elements) are recognized in profit or loss in accordance with K-IFRS 1039 *Financial Instruments: Recognition and Measurement*. The changes in the fair value of the aligned time value of the option are recognized in other comprehensive income in accordance with K-IFRS 1109 *Financial Instruments*. The amount accumulated in equity is either reclassified to the profit or loss or derecognized from equity and included in the book value of non-financial items during when the hedged item affects the profit or loss.

The Group designates only the intrinsic value of option contracts as a hedging instrument, i.e., excluding the time value of the option. The changes in the fair value of the aligned time value of the option are recognized in other comprehensive income and accumulated in the cost of hedging reserve. If the hedged item is transaction-related, the time value is reclassified to profit or loss when the hedged item affects profit or loss. If the hedged item is time-period-related, then the amount accumulated in the cost of hedging reserve is reclassified to profit or loss on a rational basis – the Group applies straight-line amortization. Those reclassified amounts are recognized in profit or loss in the same line as the hedged item. If the hedged item is non-financial, then the amount accumulated in the cost of hedging reserve is removed directly from equity and included in the initial carrying amount of the recognized non-financial item. Furthermore, if the Group expects that some, or all, of the loss accumulated in the cost of hedging reserve will not be recovered in the future, that amount is immediately reclassified to profit or loss.

1-1) Fair value hedges

The fair value change on qualifying hedging instruments is recognized in profit or loss, except when the hedging instrument hedges an equity instrument designated at FVOCI; in which case, it is recognized in other comprehensive income.

The carrying amount of a hedged item not already measured at fair value is adjusted for the fair value change attributable to the hedged risk with a corresponding entry in profit or loss. For debt instruments measured at FVOCI, the carrying amount is not adjusted as it is already at fair value, but the hedging gain or loss is recognized in profit or loss instead of other comprehensive income. When the hedged item is an equity instrument designated at FVOCI, the hedging gain or loss remains in other comprehensive income to match that of the hedging instrument.

Where hedging gains or losses are recognized in profit or loss, they are recognized in the same line as the hedged item.

The Group discontinues hedge accounting only when the hedging relationship (or a part thereof) ceases to meet the qualifying criteria (after rebalancing, if applicable). This includes instances when the hedging instrument expires or is sold, terminated or exercised. The discontinuation is accounted for prospectively. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to profit or loss from that date.

1-2) Cash flow hedges

The effective portion of changes in the fair value of derivatives and other qualifying hedging instruments that are designated and qualify as cash flow hedges are recognized in other comprehensive income and accumulated under the heading of cash flow hedging reserve, limited to the cumulative change in fair value of the hedged item from the inception of the hedge. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss and is included in the 'Other gains and losses' line item.

Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss in the same line as the recognized hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognized in other comprehensive income and accumulated in equity are removed from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability. This transfer does not affect other comprehensive income. Furthermore, if the Group expects that some, or all, of the loss accumulated in the cash flow hedging reserve will not be recovered in the future, that amount is immediately reclassified to profit or loss.

The Group discontinues hedge accounting only when the hedging relationship (or a part thereof) ceases to meet the qualifying criteria (after rebalancing, if applicable). This includes instances when the hedging instrument expires or is sold, terminated or exercised. The discontinuation is accounted for prospectively. Any gain or loss recognized in other comprehensive income and accumulated in cash flow hedge reserve at that time remains in equity and is reclassified to profit or loss when the forecast transaction occurs. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in the cash flow hedge reserve is reclassified immediately to profit or loss.

2.25 Accounting Treatment Related to the Emission Rights Cap and Trade Scheme

The Group classifies the emission rights as intangible assets. Emission rights allowances the government allocated free of charge are measured at nil, and emission rights allowances purchased are measured at cost, which the Group paid to purchase the allowances. If emission rights the government-allocated free of charge are sufficient to settle the emission rights allowances allotted for vintage years, the emissions liabilities are measured at nil. However, for the emissions liabilities that exceed the allowances allocated free of charge, the shortfall is measured at the best estimate at the end of the reporting period.

3. FINANCIAL RISK MANAGEMENT:

3.1 Financial Risk Factors

The Group's activities expose it to a variety of financial risks: market, credit and liquidity. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the financial performance of the Group. The Group uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by the Group's finance team under policies approved by the board of directors. The finance team identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units. The board of directors reviews and approves written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk and credit risk; use of derivative financial instruments and non-derivative financial instruments; and investment of excess liquidity.

(1) Market risk

1) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from foreign currency exposures, primarily with respect to the EURO. Foreign exchange risk arises from forecast transactions and recognized assets and liabilities.

Management has set up a policy to require each company in the Group to manage its foreign exchange risk against its functional currency. The Group operates a dedicated team for foreign exchange risk management and utilizes foreign exchange derivatives such as forward exchange contracts and currency swaps as hedging instruments, while principally excluding transactions for trading purposes.

The Group has certain investments in foreign operations, whose net assets are exposed to foreign exchange risk. Currency exposure arising from the net assets of the Group's foreign operations is managed primarily through borrowings denominated in the relevant foreign currencies.

Monetary assets and liabilities denominated in foreign currencies as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024		December 31, 2023	
	Assets	Liabilities	Assets	Liabilities
USD	₩ 4,302,999	₩ 6,674,089	₩ 3,960,461	₩ 4,217,923
EUR	406,770	3,728,590	494,637	4,402,758
JPY	50,688	131,907	10,673	64,295
CNY and others	243,000	56,719	128,184	9,188

With all other variables held constant as of December 31, 2024 and 2023, a hypothetical change in exchange rates by 10% would have increased (decreased) the Group's profit before tax as follows (Korean won in millions):

	December 31, 2024		December 31, 2023	
	10% Increase	10% Decrease	10% Increase	10% Decrease
USD	₩ (237,109)	₩ 237,109	₩ (25,746)	₩ 25,746
EUR	(332,182)	332,182	(390,812)	390,812
JPY	(8,122)	8,122	(5,362)	5,362
CNY and others	18,628	(18,628)	11,900	(11,900)

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The above sensitivity analysis has been performed for monetary assets and liabilities denominated in foreign currencies as of the end of the year.

As of December 31, 2024, the Group entered into foreign currency forwards and foreign currency swaps to hedge change in exchange rates and the details are as follows (Korean won in millions):

	Contractor	Contract amount (in millions)	Contract exchange rate	Contract inception date	Contract maturity	Book amount		
						Assets	Liabilities	
Currency forward (*)	KB Kookmin Bank	USD 500	1,102.83	2020.11.24	2029.04.16	₩	118,088 ₩	-
	JP Morgan	USD 200	1,337.60	2023.09.25	2026.09.25		26,287	-
	Shinhan Bank	USD 200	1,337.60	2023.09.25	2026.09.25		25,771	-
	KDB Bank	USD 400	1,337.60	2023.09.25	2028.09.25		39,389	-
	Woori Bank	USD 200	1,337.60	2023.09.25	2028.09.25		19,699	-
	DBS	USD 200	1,380.80	2024.07.02	2027.07.02		19,530	-
	JP Morgan	USD 200	1,380.80	2024.07.02	2027.07.02		19,639	-
	Shinhan Bank	USD 300	1,380.80	2024.07.02	2027.07.02		28,677	-
Currency swap (*)	KB Kookmin Bank	USD 200	1,380.80	2024.07.02	2029.07.02		15,143	-
	Woori Bank	USD 200	1,380.80	2024.07.02	2029.07.02		15,142	-
	Korea Exim Bank	USD 200	1,380.80	2024.07.02	2029.07.02		15,113	-
	IBK Securities	USD 100	1,380.80	2024.07.02	2029.07.02		7,482	-
	KDB Bank	USD 100	1,380.80	2024.07.02	2029.07.02		7,507	-
	KDB Bank	USD 400	1,380.80	2024.07.02	2034.07.02		10,243	-
	Woori Bank	USD 100	1,380.80	2024.07.02	2034.07.02		2,566	-

(*) A derivative where hedge accounting is not applied.

2) Interest rate risk

Interest rate risk is defined as the risk that the interest income or expenses arising from deposits and borrowings will fluctuate because of changes in future market interest rates. The interest rate risk mainly arises through floating-rate deposits and borrowings. The objective of interest rate risk management lies in maximizing corporate value by minimizing uncertainty in interest rate fluctuations and net interest expense.

The Group adequately minimizes risks from interest rate fluctuations through various policies, such as sharing excess cash within the Group (internal cash sharing) to minimize external borrowings; avoiding high-rate borrowings; reforming capital structure; managing an appropriate ratio of fixed-rate borrowings and floating-rate borrowings; monitoring a fluctuation of domestic and foreign interest rates daily, weekly and monthly; establishing alternatives; and balancing floating-rate short-term borrowings with floating-rate deposits.

The table below summarizes the impact of increases/decreases in interest rates on the Group's equity and profit before tax for the period. The analysis is based on the assumption that the interest rate has increased/decreased by 1% (100 bp) with all other variables held constant (Korean won in millions).

	Effect on profit and loss before tax		Impact on equity	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Increase	₩ (46,125) ₩	(47,822) ₩	(46,125) ₩	(47,822)
Decrease	46,125	47,822	46,125	47,822

3) Price risk

The Group is exposed to price risks from equity instruments. As of December 31, 2024, the fair value of equity instruments is ₩163,991 million. With all other variables held constant, a price change in equity instruments by 10% would have changed the Group's equity by ₩16,399 million before tax.

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(2) Credit risk

Credit risk arises from trade receivables that the Group holds, as well as financial assets at amortized cost or at FVOCI.

The Group has established the following policies and procedures to manage credit risks:

To manage credit risks relating to trade receivables, the Group evaluates the credit rating of customers and determines the credit limit for each customer based on the information provided by credit rating agencies and other available financial information before commencing business with new customers. The credit risks relating to trade receivables are also mitigated by insurance contracts and collateral, as well as payment guarantees.

The Group has entered into export bond insurance contracts with Korea Trade Insurance Corporation to mitigate credit risks relating to export trade receivables to overseas customers. The Group is also provided with collateral by customers depending on their credit rating or payment guarantees from the customers' financial institutions, if necessary.

The Group has deposited its cash and cash equivalents and other long-term deposits in several financial institutions, such as Woori Bank and others. The Group has also entered into derivative contracts with several financial institutions. The Group maintains business relationships with financial institutions with high credit ratings evaluated by independent credit rating agencies and, accordingly, credit risks associated with these financial institutions are limited.

1) Trade receivables

The Group applies the simplified approach in measuring expected credit losses, which uses lifetime expected provisions for trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The provisions for receivables as of December 31, 2024 and 2023, are as follows. Expected credit losses include forward-looking information (Korean won in millions):

	<u>Receivables not past due (*)</u>	<u>Receivables past due, but not impaired (*)</u>	<u>Receivables impaired (individually evaluated)</u>	<u>Total</u>
December 31, 2024 (trade receivables)				
Gross carrying amount	₩ 5,226,311	₩ 110,292	₩ 1	₩ 5,336,604
Expected loss rate	-	-	100.00%	0.00%
Provisions for receivables	-	-	1	1
December 31, 2023 (trade receivables)				
Gross carrying amount	₩ 5,208,387	₩ 50,082	-	₩ 5,258,469
Expected loss rate	-	-	-	-
Provisions for receivables	-	-	-	-

(*) See Note 7.(3) for aging analysis.

Changes in the provisions for trade receivables for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Beginning	₩ -	₩ 1,234
Provisions recognized in profit or loss	13	-
Write-off	(12)	(1,234)
Ending	<u>₩ 1</u>	<u>₩ -</u>

As of December 31, 2024, the carrying amount of trade receivables representing the maximum exposure to credit risk amounted to ₩5,336,603 million (as of December 31, 2023, was ₩5,258,469 million).

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2) Other financial assets at amortized cost

All of the financial assets at amortized cost are considered to have low credit risk, and the provisions recognized during the period were, therefore, limited to 12 months' expected losses.

As of December 31, 2024 and 2023, the provisions for other financial assets at amortized cost do not exist.

3) Debt instruments measured at FVOCI

Debt instruments measured at FVOCI include trade receivables to be discounted. The provisions for these instruments are recognized in profit or loss and reduce the amount that would have been recognized in other comprehensive income as a loss on fair value change.

(3) Liquidity risk

The finance team of the Group monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining the limit of unused borrowings at an appropriate level so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. The Group's liquidity management policy considers the Group's financing plans, covenants on the debt contracts, target financial ratios and, if applicable, other external regulatory requirements on the currency and others.

1) The table below analyzes the Group's derivative financial liabilities into relevant maturity groupings based on the remaining period from the reporting period to the contractual maturity date. Cash flows presented below are gross cash flows before discount and include cash flows for interests (Korean won in millions):

	December 31, 2024			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Non-derivative instruments:				
Borrowings	₩ 3,059,952	₩ 3,658,210	₩ 8,594,217	₩ 2,340,232
Lease liabilities	87,984	57,643	103,007	134,674
Trade and other payables (*)	<u>8,095,329</u>	<u>17,194</u>	<u>4,887</u>	<u>1</u>
	11,243,265	3,733,047	8,702,111	2,474,907
Derivative instruments:				
Currency forwards and swaps settled in gross:				
Inflows	-	(588,000)	(3,822,000)	(735,000)
Outflows	<u>-</u>	<u>535,040</u>	<u>3,425,175</u>	<u>690,400</u>
	-	(52,960)	(396,825)	(44,600)
	<u>₩ 11,243,265</u>	<u>₩ 3,680,087</u>	<u>₩ 8,305,286</u>	<u>₩ 2,430,307</u>

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	December 31, 2023			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Non-derivative instruments:				
Borrowings	₩ 3,593,996	₩ 1,470,668	₩ 5,466,623	₩ 1,795,105
Lease liabilities	58,359	50,288	36,469	22,533
Trade and other payables (*)	<u>6,551,822</u>	<u>16,229</u>	<u>9,062</u>	<u>-</u>
	10,204,177	1,537,185	5,512,154	1,817,638
Derivative instruments:				
Currency forwards and swaps settled in gross:				
Inflows	(644,700)	-	(1,289,400)	(644,700)
Outflows	<u>567,800</u>	<u>-</u>	<u>1,337,600</u>	<u>551,415</u>
	(76,900)	-	48,200	(93,285)
	<u>₩ 10,127,277</u>	<u>₩ 1,537,185</u>	<u>₩ 5,560,354</u>	<u>₩ 1,724,353</u>

(*) As of the end of the current period, the amount paid using the purchasing card includes ₩439,603 million, for which the substantive maturity has been extended. There was no outstanding balance related to the use of the purchasing card as of the end of 2023.

2) As of December 31, 2024 and 2023, the Group has entered into swap contracts, to which cash flow hedge accounting is applied, to avoid fluctuations in the market price of raw materials (Korean won in millions):

	Purpose of the contract	Hedged items	Financial institution	Maturity	December 31, 2024		December 31, 2023	
					Assets	Liabilities	Asset	Liability
Merchandise (raw materials) swap (*)	Cash flow hedge	Non-ferrous metal	Citibank, etc.	2027.12	₩ 64	₩ 1,594	₩ 89	₩ 4,899

(*) Gain (loss) on the contracts that hedge the cash flow risk of forecast transaction is recognized in accumulated other comprehensive income and is fully effective portion for hedging.

3) Details of financial guaranteed contracts by maturity as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Financial guarantee contracts (*)	₩ -	₩ -	₩ -	₩ -
	December 31, 2023			
	Less than 1 year	Between 1-2 years	Between 2-5 years	More than 5 years
Financial guarantee contracts (*)	₩ 285,602	₩ -	₩ -	₩ -

(*) The Group has provided financial guarantees for joint venture and the amount represents the maximum amount that can be required to guarantee as of December 31, 2024 and 2023. As of December 31, 2024, there is no total payment guarantee limit under the agreements entered into (as of December 31, 2023, was ₩458,382 million) (see Note 18).

3.2 Capital Risk Management

The Group's objectives for managing capital are to safeguard the Group's ability to continue to provide profits to shareholders and for other stakeholders as a going concern and to maintain an optimal capital structure to reduce the cost of capital.

Consistent with others in the industry, the Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings, less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the consolidated statements of financial position, plus net debt.

The gearing ratio and debt-to-equity ratio as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Total borrowings (Note 14) (A)	₩ 15,390,551 ₩	10,932,288
Less: cash and cash equivalents (B)	<u>(3,898,711)</u>	<u>(5,068,783)</u>
Net debt (C=A+B)	11,491,840	5,863,505
Total liabilities (D)	29,340,248	21,063,635
Total equity (E)	30,966,543	24,373,509
Total capital (F=C+E)	<u>42,458,383</u>	<u>30,237,014</u>
Gearing ratio (C/F)	27.1%	19.4%
Debt-to-equity ratio (D/E)	94.7%	86.4%

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3.3 Fair Value Estimation

(1) The carrying amount and fair value of financial instruments by category as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024		December 31, 2023	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets (current):				
Cash and cash equivalents	₩ 3,898,711	(*)	₩ 5,068,783	(*)
Trade receivables	4,944,019	(*)	5,128,474	(*)
Other receivables (excluding due from financial institutions)	603,635	(*)	550,186	(*)
Due from financial institutions	-	-	5,000	(*)
Current derivative financial assets	42	42	51	51
Current derivative financial assets (currency forward)	-	-	65,388	65,388
Financial assets (non-current):				
Due from financial institutions	66,231	(*)	61,343	(*)
Trade receivables	392,584	(*)	129,995	(*)
Other receivables (excluding due from financial institutions)	68,219	(*)	60,939	(*)
Other non-current financial assets (measured at fair value)				
Marketable financial assets	26,973	26,973	31,143	31,143
Non-marketable financial assets	703,957	703,957	261,542	261,542
Non-current derivative financial assets	31,163	31,163	17,215	17,215
Non-current derivative financial assets (currency forward)	118,088	118,088	47,138	47,138
Non-current derivative financial assets (currency swap)	252,187	252,187	-	-
Financial liabilities (current):				
Trade and other payables	8,095,329	(*)	6,551,822	(*)
Current borrowings (excluding lease liabilities)	2,413,086	(*)	3,157,459	(*)
Current derivative financial liabilities	1,159	1,159	3,937	3,937
Current derivative financial liabilities (currency forward)	-	-	3,715	(*)
Financial liabilities (non-current):				
Non-current borrowings (excluding lease liabilities)	12,641,359	13,202,530	7,628,468	7,750,905
Other non-current payables	22,082	(*)	25,291	(*)
Non-current derivative financial liabilities	435	435	962	962
Non-current derivative financial liabilities (currency swap)	-	-	67,862	67,862
Non-current financial liabilities at amortized cost	1,000,200	(*)	-	-

(*) Fair values for these financial assets and liabilities are not disclosed above as their carrying amounts are reasonable approximations of their fair values.

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(2) Fair values for measurement and disclosure are determined based on the following method:

Fair values of financial liabilities (non-current) are calculated by discounting the expected cash outflows by the yield of the Company's Korean won-denominated corporate bonds with the specified credit rating (AA0). The applied discount rates as of December 31, 2024 and 2023, are as follows:

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Discount rate	3.17% ~ 4.12%	3.79% ~ 4.79%

(3) Fair value hierarchy

Items that are measured at fair value are categorized by the fair value hierarchy levels, and the defined levels are as follows:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group can access at the measurement date (Level 1).
- All inputs other than quoted prices included in Level 1 that are observable (either directly, i.e., prices, or indirectly, i.e., derived from prices) for the asset or liability (Level 2).
- Unobservable inputs for the asset or liability (Level 3).

As of December 31, 2024 and 2023, fair value hierarchy of the financial instruments that are consistently measured and recognized at fair value is as follows (Korean won in millions):

	<u>December 31, 2024</u>				
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>	
Financial assets/liabilities measured at fair value:					
Current derivative financial assets	₩	- ₩	42 ₩	- ₩	42
Non-current derivative financial assets		-	22	31,141	31,163
Non-current derivative financial assets (currency forward)		-	118,088	-	118,088
Non-current derivative financial assets (currency swap)		-	252,187	-	252,187
Other non-current financial assets (marketable financial assets)	26,973	-	-	-	26,973
Other non-current financial assets (non-marketable financial assets)	-	-	703,957	-	703,957
Current derivative financial liabilities		-	1,159	-	1,159
Non-current derivative financial liabilities		-	435	-	435
Financial assets/liabilities not measured at fair value:					
Non-current borrowings (excluding lease liabilities)		-	13,202,530	-	13,202,530

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	December 31, 2023				
	Level 1	Level 2	Level 3	Total	
Financial assets/liabilities measured at fair value:					
Current derivative financial assets	₩	- ₩	51 ₩	- ₩	51
Current derivative financial assets (currency forward)	-	65,388	-	-	65,388
Non-current derivative financial assets	-	38	17,177	-	17,215
Non-current derivative financial assets (currency forward)	-	47,138	-	-	47,138
Other non-current financial assets (marketable financial assets)	31,143	-	-	-	31,143
Other non-current financial assets (non-marketable financial assets)	-	-	261,542	-	261,542
Current derivative financial liabilities	-	3,937	-	-	3,937
Non-current derivative financial liabilities	-	962	-	-	962
Non-current derivative financial liabilities (currency swap)	-	67,862	-	-	67,862
Financial assets/liabilities not measured at fair value:					
Non-current borrowings (excluding lease liabilities)	-	7,750,905	-	-	7,750,905

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(4) Valuation techniques and inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy as of December 31, 2024 and 2023, are as follows:

(In millions of Korean won)	December 31, 2024			
	Fair Value	Valuation technique	Unobservable significant inputs	Coverage of inputs (weighted average)
Non-listed shares:				
Volta Energy Solutions S.a.r.l	₩ 48,481	Discounted cash flows model	Perpetual growth rate Weighted average cost of capital	1.00% 10.40%
Shanghai Greatpower Technology Co., Ltd.	29,420	Discounted cash flows model	Perpetual growth rate Weighted average cost of capital	1.00% 11.30%
Non-current derivatives:				
Put option on Volta Energy Solution S.a.r.l	31,141	Binominal option-pricing model	Volatility Risk-free rate	47.83% 3.63%
Convertible Bonds on Liantown Resources Limited. CB	353,964	Binominal option-pricing model	Volatility Risk-free rate	68.13% 3.84%

(5) Changes in Level 3 of the financial instruments for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024	2023
Beginning	₩ 278,719	₩ 263,686
Increase	407,600	99,829
Decrease	(2,023)	-
Profit for the period	39,639	13,601
Other comprehensive (loss) income	11,163	(98,397)
Ending	₩ 735,098	₩ 278,719

4. SIGNIFICANT ACCOUNTING ESTIMATES AND ASSUMPTIONS:

The preparation of consolidated financial statements requires the Group to make estimates and assumptions concerning the future. Management also needs to exercise judgment in applying the Group's accounting policies. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates may differ from the related actual results.

The significant estimates and assumptions made by management on the application of the Group's consolidated financial statements are the same as those of the annual consolidated financial statements as of and for the year ended December 31, 2023, except for estimates used in determining income tax expenses.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

(1) Income taxes

The Group's taxable income generated from these operations is subject to income taxes based on tax laws and interpretations of tax authorities in numerous jurisdictions. There are many transactions and calculations for which the ultimate tax determination is uncertain. If certain portion of the taxable income is not used for investments, increases in wages or dividends, the Group is liable to pay additional income tax calculated based on the tax laws. Accordingly, the measurement of current and deferred income taxes is affected by these tax effects. As the Group's income tax is dependent on the investments, increase in wages and dividends, there is an uncertainty in measuring the final tax effects.

(2) Provisions

The Group recognizes provisions for product warranties as explained in Note 15. These provisions are estimated based on the average warranty period, revenue and historical claim experience rate. Provisions related to voluntary recalls by the Group's customers are estimated based on the number of vehicles subject to recall, estimated total repair cost and cost-sharing ratio.

(3) Fair value of financial instruments

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Group uses its judgment to select a variety of methods and make assumptions that are mainly based on market conditions existing on December 31, 2024 (see Note 3.3).

(4) Impairment of financial assets

The provision for impairment of financial assets is based on assumptions about the risk of default and expected loss rates. The Group uses judgment in making these assumptions and selecting the inputs to the impairment calculation based on the Group's past experience and existing market conditions, as well as forward-looking estimates at the end of each reporting period (see Note 3.1.(2)).

(5) Net defined benefit liabilities (assets)

The present value of net defined benefit liabilities (assets) depend on a number of factors that are determined on an actuarial basis using a number of assumptions, including the discount rate (see Note 16).

(6) Lease

In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option or not exercise a termination option. Periods covered by the extension option (or the termination option) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

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The lease term is reassessed if an option is actually exercised (or not exercised) or the Group becomes obliged to exercise (or not exercise) it. The assessment of reasonable certainty is only revised if a significant event or a significant change in circumstances occurs, which affects this assessment, and that is within the control of the lessee.

5. FINANCIAL INSTRUMENTS BY CATEGORY:

(1) Categorizations of financial instruments as of December 31, 2024 and 2023, are as follows (Korean won in millions):

December 31, 2024					
Financial assets	Financial assets at amortized cost	Financial assets at FVPL	Financial assets at FVOCI (*1)	Other financial assets (*2)	Total
Cash and cash equivalents	₩ 3,898,711	₩ -	₩ -	₩ -	₩ 3,898,711
Trade receivables	4,621,452	-	322,567	-	4,944,019
Non-current trade receivables	392,584	-	-	-	392,584
Other current receivables	603,635	-	-	-	603,635
Other non-current receivables	134,450	-	-	-	134,450
Other current financial assets	-	-	-	42	42
Other non-current financial assets	-	968,355	163,991	22	1,132,368
	<u>₩ 9,650,832</u>	<u>968,355</u>	<u>₩ 486,558</u>	<u>₩ 64</u>	<u>₩ 11,105,809</u>

December 31, 2024			
Financial liabilities	Financial liabilities at amortized cost	Other financial liabilities (*3)	Total
Trade payables	₩ 2,705,481	₩ -	₩ 2,705,481
Other payables	5,389,848	-	5,389,848
Other non-current payables	22,082	-	22,082
Current borrowings	2,413,086	77,154	2,490,240
Non-current borrowings	12,641,359	258,952	12,900,311
Other current financial liabilities	-	1,159	1,159
Other non-current financial liabilities	1,000,200	435	1,000,635
	<u>₩ 24,172,056</u>	<u>₩ 337,700</u>	<u>₩ 24,509,756</u>

December 31, 2023					
Financial assets	Financial assets at amortized cost	Financial assets at FVPL	Financial assets at FVOCI (*1)	Other financial assets (*2)	Total
Cash and cash equivalents	₩ 5,068,783	₩ -	₩ -	₩ -	₩ 5,068,783
Trade receivables	4,709,277	-	419,197	-	5,128,474
Non-current trade receivables	129,995	-	-	-	129,995
Other current receivables	555,186	-	-	-	555,186
Other non-current receivables	122,282	-	-	-	122,282
Other current financial assets	-	65,388	-	51	65,439
Other non-current financial assets	-	216,565	140,435	38	357,038
	<u>₩ 10,585,523</u>	<u>281,953</u>	<u>₩ 559,632</u>	<u>₩ 89</u>	<u>₩ 11,427,197</u>

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Financial liabilities	December 31, 2023			
	Financial liabilities at amortized cost	Financial assets at FVPL	Other financial liabilities (*3)	Total
Trade payables	₩ 3,093,719	₩ -	₩ -	3,093,719
Other payables	3,458,103	-	-	3,458,103
Other non-current payables	25,291	-	-	25,291
Current borrowings	3,157,459	-	53,997	3,211,456
Non-current borrowings	7,628,468	-	92,364	7,720,832
Other current financial liabilities	3,715	-	3,937	7,652
Other non-current financial liabilities	-	67,862	962	68,824
	<u>₩ 17,366,755</u>	<u>₩ 67,862</u>	<u>₩ 151,260</u>	<u>₩ 17,585,877</u>

(*1) At initial recognition, the Group made an irrevocable election to designate investments in equity instruments as at FVOCI. These instruments are held for strategic purposes, not for short-term trading. In addition, the Group classified trade receivables under the 'hold to collect and sell' business model as financial assets at FVOCI.

(*2) Other financial assets include derivative assets.

(*3) Other financial liabilities include lease liabilities and derivative liabilities.

(2) Net gains (losses) on each category of financial instruments for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024	2023
Interest income:		
Financial assets at amortized cost	₩ 222,769	₩ 177,840
Interest expense:		
Financial liabilities at amortized cost	(650,894)	(371,479)
Other financial liabilities	(9,522)	(2,288)
Financial assets at amortized cost (*)	(46)	(6,271)
Gains (losses) on valuation or disposal:		
Financial assets at FVPL	(8,823)	-
Financial assets at FVOCI	(251)	(136,381)
Derivative instruments	405,371	(50,534)
Exchange differences:		
Financial assets at amortized cost	561,078	4,702
Financial liabilities at amortized cost	(617,614)	397,916
Financial assets at FVPL	34,561	1,063

(*) Fees paid to financial institutions for factoring

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(3) Supplier financing arrangements

Supplier financing arrangements involve one or more financial institutions providing amounts that the Group is obligated to pay to the supplier. The Group then reimburses the financial institutions according to the terms of the arrangement after the supplier has received the payment. These arrangements typically provide the Group with an extended payment term beyond the supplier's payment due date or allow the supplier to receive payment earlier than expected.

As of December 31, 2024, the Group has entered into the following supplier financing arrangements. (Korean won in millions):

Classification	Line item	December 31, 2024	Index
Purchase card	Accounts payable	₩ 439,603	(*)

(*) Under the purchase card arrangement, the financial institution acquires the rights to specific receivables of the supplier. Although there is a change in the payment terms due to this arrangement, since the terms of the liability have not materially changed, it was deemed appropriate to continue to present the amounts related to accounts payable and other liabilities in the financial statement. In the cash flow statement, the Group determined that it is not a party to the cash flows between the financial institution and the supplier, and since the substantive terms of the accounts payable have not changed, it was considered as a regular payment for business transactions.

There were no significant business combinations or exchange rate differences affecting the supplier financing liabilities.

The supplier financing liabilities are short-term, and their carrying amounts are considered to be a reasonable approximation of fair value.

6. CASH AND CASH EQUIVALENTS:

(1) Details of cash and cash equivalents as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024	December 31, 2023
Bank deposits and cash on hand	₩ 2,950,257	₩ 2,444,702
Cash equivalents	948,454	2,624,081
	<u>₩ 3,898,711</u>	<u>₩ 5,068,783</u>

(2) As of December 31, 2024, cash and cash equivalents include ₩1,204,633 million, which is subject to a restriction on the use and remittance (as of December 31, 2023, was ₩1,165 million).

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7. TRADE AND OTHER RECEIVABLES:

(1) Trade and other receivables and their provisions for impairment as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024			December 31, 2023		
	Gross amount	Provision for impairment	Carrying amount	Gross amount	Provision for impairment	Carrying amount
Trade receivables	₩ 4,944,020	₩ (1)	₩ 4,944,019	₩ 5,128,474	₩ -	₩ 5,128,474
Non-current trade receivables	392,584	-	392,584	129,995	-	129,995
Other current receivables	603,635	-	603,635	555,186	-	555,186
Other non-current receivables	134,450	-	134,450	122,282	-	122,282
	<u>₩ 6,074,689</u>	<u>₩ (1)</u>	<u>₩ 6,074,688</u>	<u>₩ 5,935,937</u>	<u>₩ -</u>	<u>₩ 5,935,937</u>

(2) Details of other receivables as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024	December 31, 2023
Current:		
Non-trade receivables	₩ 571,809	₩ 519,339
Due from financial institutions	-	5,000
Accrued income	4,529	4,840
Loans	99	-
Guarantee deposits provided	27,198	26,007
	<u>603,635</u>	<u>555,186</u>
Non-current:		
Non-trade receivables	3,291	7,592
Due from financial institutions (*)	66,231	61,343
Loans	11,433	6,344
Guarantee deposits provided	53,495	47,003
	<u>134,450</u>	<u>122,282</u>
	<u>₩ 738,085</u>	<u>₩ 677,468</u>

(*) As of December 31, 2024, the deposits from financial institutions (non-current) are subject to withdrawal restrictions, which include ₩60,000 million for the Agreement on the Win-Win Growth Cooperation, ₩14 million related to guarantee deposit for current account opening, and USD 4 million as collateral for LOC issuance.

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(3) The aging analysis of trade and other receivables as of December 31, 2024 and 2023, is as follows (Korean won in millions):

	December 31, 2024		December 31, 2023	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Receivables not past due	₩ 5,226,311	₩ 721,072	₩ 5,208,387	₩ 633,790
Past due, but not impaired:				
Up to three months	109,247	13,873	33,667	27,694
Between 3–6 months	961	598	16,403	11,818
Over six months	84	2,542	12	4,166
	110,292	17,013	50,082	43,678
Impaired receivables	1	-	-	-
	₩ 5,336,604	₩ 738,085	₩ 5,258,469	₩ 677,468

(4) Changes in the provision for impairment of trade and other receivables for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024		2023	
	Trade receivables	Other receivables	Trade receivables	Other receivables
Beginning	₩ -	₩ -	₩ 1,234	₩ 54
Additions	13	-	-	-
Write-off	(12)	-	(1,234)	(54)
Ending	₩ 1	₩ -	₩ -	₩ -

(5) As of December 31, 2024 and 2023, the carrying amounts of trade and other receivables are approximation of their fair values.

(6) The Group transfers trade receivables along with substantially all the risks and rewards of ownership. Therefore, the amount was derecognized on the discount date. As of December 31, 2024, there is no balance of transferred trade receivables. (As of December 31, 2023, trade receivables were ₩35,033 million.)

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8. OTHER FINANCIAL ASSETS AND LIABILITIES:

(1) Details of other financial assets and liabilities as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Other financial assets:		
Financial assets at FVOCI	₩ 163,991	₩ 140,435
Cash flow hedge	64	89
Financial assets at FVPL	<u>968,355</u>	<u>281,953</u>
	<u>₩ 1,132,410</u>	<u>₩ 422,477</u>
Other financial liabilities:		
Financial guarantee contracts	₩ -	₩ 3,715
Cash flow hedge	1,594	4,899
Financial liabilities at FVPL	-	67,862
Other financial liabilities at amortized cost	<u>1,000,200</u>	<u>-</u>
	<u>₩ 1,001,794</u>	<u>₩ 76,476</u>

(2) Details of changes in equity securities included in other financial assets for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Beginning	₩ 140,435	₩ 245,585
Acquisitions/Transfer	16,563	30,169
Valuation gain (loss) (before income tax deduction), other comprehensive income item	(251)	(136,381)
Others	<u>7,244</u>	<u>1,062</u>
Ending	<u>₩ 163,991</u>	<u>₩ 140,435</u>

The Group has entered into a put option contract to secure the investment capital for its equity securities held in Volta Energy Solutions S.a.r.l. The major terms of the agreements are as follows:

- Exercise date: From three years after the acceptance date (initial investment date, January 27, 2021) to the following three years.
- Exercise price: The amount contributed, less any dividends received from the date of contribution up to the exercise.
- Other term: The option cannot be exercised once Volta Energy Solutions S.a.r.l is listed.

9. INVENTORIES:

(1) Details of inventories as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>			<u>December 31, 2023</u>		
	<u>Gross amount</u>	<u>Valuation allowance</u>	<u>Carrying amount</u>	<u>Gross amount</u>	<u>Valuation allowance</u>	<u>Carrying amount</u>
Merchandise	₩ 207,834	₩ (35,724)	₩ 172,110	₩ 340,444	₩ (28,951)	₩ 311,493
Finished/semifinished products	2,781,000	(242,822)	2,538,178	3,188,515	(161,497)	3,027,018
Raw materials	1,322,065	(16,384)	1,305,681	1,413,895	(45,709)	1,368,186
Supplies	109,352	(7,776)	101,576	121,344	(10,038)	111,306
Materials in transit	434,810	-	434,810	578,333	-	578,333
	<u>₩ 4,855,061</u>	<u>₩ (302,706)</u>	<u>₩ 4,552,355</u>	<u>₩ 5,642,531</u>	<u>₩ (246,195)</u>	<u>₩ 5,396,336</u>

(2) The amount of inventories expensed as cost of sales for the years ended December 31, 2024 and 2023, was ₩21,587,966 million and ₩28,421,367 million, respectively.

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10. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES:

(1) Changes in investments in associates and joint ventures for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024							
	Beginning	Acquisitions	Dividend	Share of loss of associates and joint ventures	Share of other comprehensive income of associates and joint ventures Effect of foreign currency translation	Reclassification due to disposal	Disposals	Ending
PT. HLI Green Power (*1)	₩162,273	₩ -	₩ -	₩ (42,710)	₩ 15,209	₩ (37,804)	₩ (96,968)	₩ -
Sama Aluminium Co., Ltd.	46,257	-	(150)	(711)	-	-	-	45,396
Nexpo Co., Ltd.	2,186	1,900	-	(255)	-	-	-	3,831
Bricks Capital Management Global Battery Private Equity Fund I	12,843	5,761	-	(5,442)	-	-	-	13,162
	<u>₩ 223,559</u>	<u>₩ 7,661</u>	<u>₩ (150)</u>	<u>₩ (49,118)</u>	<u>₩ 15,209</u>	<u>₩ (37,804)</u>	<u>₩ (96,968)</u>	<u>₩ 62,389</u>

	2023					
	Beginning	Acquisitions	Share of loss of associates and joint ventures	Share of other comprehensive income (loss) of associates and joint ventures	Impairment	Ending
VINFAST LITHIUM BATTERY PACK LLC (*2)	₩ 2,428	₩ -	₩ (482)	₩ 66	₩ (2,012)	₩ -
Jiangxi VL Battery Co., Ltd (*3).	13,323	-	(1,317)	543	(12,549)	-
PT. HLI Green Power	187,945	-	(29,606)	3,934	-	162,273
Sama Aluminium Co., Ltd.	-	46,575	(318)	-	-	46,257
Nexpo Co., Ltd	-	2,375	(189)	-	-	2,186
Bricks Capital Management Global Battery Private Equity Fund I	-	13,381	(538)	-	-	12,843
	<u>₩ 203,696</u>	<u>₩ 62,331</u>	<u>₩ (32,450)</u>	<u>₩ 4,543</u>	<u>₩ (14,561)</u>	<u>₩ 223,559</u>

(*1) During the current period, the Group reclassified PT. HLI Green Power from a joint venture to a subsidiary due to amendments in the shareholder agreement.

(*2) During the year ended December 31, 2023, the Group disposed of its entire ownership interest in VINFAST LITHIUM BATTERY PACK LLC.

(*3) During the year ended December 31, 2023, the Group disposed of its entire ownership interest in Jiangxi VL Battery Co., Ltd.

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(2) As of December 31, 2024 and 2023, the processes of adjusting the financial information to the carrying amounts of shares in associates and joint ventures are as follows (Korean won in millions):

December 31, 2024					
	Net assets	Group's percentage of ownership	Net asset value for shares	Internal transactions and others	Carrying amount
Sama Aluminium Co., Ltd.	243,665	10.2	24,854	20,542	45,396
Nexpo Co., Ltd	20,270	19.0	3,851	(20)	3,831
Bricks Capital Management Global Battery Private Equity Fund I	<u>22,345</u>	59.9	<u>13,385</u>	<u>(223)</u>	<u>13,162</u>
	<u>₩ 286,280</u>		<u>₩ 42,090</u>	<u>₩ 20,299</u>	<u>₩ 62,389</u>

December 31, 2023					
	Net assets	Group's percentage of ownership	Net asset value for shares	Internal transactions and others	Carrying amount
PT. HLI Green Power	₩ 434,608	50.0	₩ 217,304	₩ (55,031)	₩ 162,273
Sama Aluminium Co., Ltd.	252,271	10.2	25,732	20,525	46,257
Nexpo Co., Ltd	11,505	19.0	2,186	-	2,186
Bricks Capital Management Global Battery Private Equity Fund I	<u>21,551</u>	59.9	<u>12,905</u>	<u>(62)</u>	<u>12,843</u>
	<u>₩ 719,935</u>		<u>₩ 258,127</u>	<u>₩ (34,568)</u>	<u>₩ 223,559</u>

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11. PROPERTY, PLANT AND EQUIPMENT:

(1) Changes in property, plant and equipment for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024					
	<u>Land</u>	<u>Building</u>	<u>Structures</u>	<u>Machinery</u>	<u>Vehicle</u>	<u>Tool</u>
Beginning						
Carrying amount	₩ 400,073	₩ 5,914,966	₩ 257,545	₩ 12,477,426	₩ 28,953	₩ 1,499,883
Accumulated depreciation	-	(730,670)	(69,163)	(6,572,874)	(18,176)	(780,220)
Accumulated impairment	(668)	(4,305)	(1,835)	(43,900)	(24)	(3,682)
	<u>₩ 399,405</u>	<u>₩ 5,179,991</u>	<u>₩ 186,547</u>	<u>₩ 5,860,652</u>	<u>₩ 10,753</u>	<u>₩ 715,981</u>
Acquisition/Transfer	41,194	1,740,238	40,233	3,308,978	5,794	378,623
Disposal/Transfer	(18,756)	(51,733)	(6,684)	(213,886)	(1,461)	(42,793)
Exchange differences	10,964	589,561	19,293	734,843	656	39,330
Depreciation	-	(208,576)	(17,686)	(2,190,395)	(3,892)	(247,706)
Business combination	54,797	232,269	39,416	532,629	448	26,044
Impairment	-	(36,649)	-	(70,502)	(22)	(16,724)
Ending						
Carrying amount	488,272	8,501,946	355,098	16,991,679	33,942	1,814,893
Accumulated depreciation	-	(1,012,932)	(92,144)	(8,909,021)	(21,596)	(946,508)
Accumulated impairment	(668)	(43,913)	(1,835)	(120,339)	(70)	(15,630)
	<u>₩ 487,604</u>	<u>₩ 7,445,101</u>	<u>₩ 261,119</u>	<u>₩ 7,962,319</u>	<u>₩ 12,276</u>	<u>₩ 852,755</u>

	2024(Cont.)					
	<u>Fixtures</u>	<u>Right-of-use assets</u>	<u>Construction in progress</u>	<u>Machinery in transit</u>	<u>Others</u>	<u>Total</u>
Beginning						
Carrying amount	₩ 532,465	₩ 287,127	₩ 10,910,441	₩ 22,509	₩ 22,745	₩ 32,354,133
Accumulated depreciation	(217,340)	(121,043)	-	-	(6,684)	(8,516,170)
Accumulated impairment	(571)	-	(128,301)	-	-	(183,286)
	<u>₩ 314,554</u>	<u>₩ 166,084</u>	<u>₩ 10,782,140</u>	<u>₩ 22,509</u>	<u>₩ 16,061</u>	<u>₩ 23,654,677</u>
Acquisition/Transfer	243,062	253,705	13,673,753	94,954	15,668	19,796,202
Disposal/Transfer	(4,161)	(17,376)	(6,139,148)	(23,266)	(2,890)	(6,522,154)
Exchange differences	27,043	24,448	1,827,114	(2,811)	-	3,270,441
Depreciation	(99,259)	(73,925)	-	-	(8,006)	(2,849,445)
Business combination	31,493	604	108,639	-	-	1,026,339
Impairment	(181)	-	97,570	-	-	(26,508)
Ending						
Carrying amount	838,172	538,317	20,390,183	91,386	35,523	50,079,411
Accumulated depreciation	(324,958)	(184,777)	-	-	(14,690)	(11,506,626)
Accumulated impairment	(663)	-	(40,115)	-	-	(223,233)
	<u>₩ 512,551</u>	<u>₩ 353,540</u>	<u>₩ 20,350,068</u>	<u>₩ 91,386</u>	<u>₩ 20,833</u>	<u>₩ 38,349,552</u>

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	2023					
	<u>Land</u>	<u>Building</u>	<u>Structures</u>	<u>Machinery</u>	<u>Vehicle</u>	<u>Tool</u>
Beginning						
Carrying amount	₩ 349,255	₩ 4,703,585	₩ 236,574	₩ 10,227,713	₩ 17,118	₩ 1,263,884
Accumulated depreciation	-	(570,459)	(56,040)	(5,163,539)	(7,798)	(646,927)
Accumulated impairment	(668)	(3,558)	(1,835)	(3,185)	(8)	(357)
	<u>₩ 348,587</u>	<u>₩ 4,129,568</u>	<u>₩ 178,699</u>	<u>₩ 5,060,989</u>	<u>₩ 9,312</u>	<u>₩ 616,600</u>
Acquisition/Transfer	42,281	983,966	15,689	2,504,920	3,576	322,978
Disposal/Transfer	-	(1,029)	(1,491)	(251,875)	(1,055)	(29,724)
Exchange differences	8,537	220,842	7,791	219,252	1,494	21,340
Depreciation	-	(152,610)	(14,141)	(1,636,219)	(2,556)	(211,889)
Impairment	-	(746)	-	(36,145)	(18)	(3,324)
Ending						
Carrying amount	400,073	5,914,966	257,545	12,477,426	28,953	1,499,883
Accumulated depreciation	-	(730,670)	(69,163)	(6,572,874)	(18,176)	(780,220)
Accumulated impairment	(668)	(4,305)	(1,835)	(43,900)	(24)	(3,682)
	<u>₩ 399,405</u>	<u>₩ 5,179,991</u>	<u>₩ 186,547</u>	<u>₩ 5,860,652</u>	<u>₩ 10,753</u>	<u>₩ 715,981</u>

	2023(Cont.)					
	<u>Fixtures</u>	<u>Right-of-use assets</u>	<u>Construction in progress</u>	<u>Machinery in transit</u>	<u>Others</u>	<u>Total</u>
Beginning						
Carrying amount	₩ 430,727	₩ 215,777	₩ 4,561,629	₩ 9,465	₩ 3,316	₩ 22,019,043
Accumulated depreciation	(159,050)	(69,417)	-	-	(299)	(6,673,529)
Accumulated impairment	(528)	-	(4,328)	-	-	(14,467)
	<u>₩ 271,149</u>	<u>₩ 146,360</u>	<u>₩ 4,557,301</u>	<u>₩ 9,465</u>	<u>₩ 3,017</u>	<u>₩ 15,331,047</u>
Acquisition/Transfer	113,339	97,347	10,619,440	47,113	22,820	14,773,469
Disposal/Transfer	(3,871)	(23,839)	(4,292,206)	(34,069)	(5,502)	(4,644,661)
Exchange differences	5,300	(4,702)	22,903	-	2,112	504,869
Depreciation	(71,301)	(49,082)	-	-	(6,386)	(2,144,184)
Impairment	(62)	-	(125,298)	-	-	(165,863)
Ending						
Carrying amount	532,465	287,127	10,910,441	22,509	22,745	32,354,133
Accumulated depreciation	(217,340)	(121,043)	-	-	(6,684)	(8,516,170)
Accumulated impairment	(571)	-	(128,301)	-	-	(183,286)
	<u>₩ 314,554</u>	<u>₩ 166,084</u>	<u>₩ 10,782,140</u>	<u>₩ 22,509</u>	<u>₩ 16,061</u>	<u>₩ 23,654,677</u>

(2) The current ending balances of property, plant and equipment include ₩20,350,068 million and ₩10,782,140 million of construction in progress as of December 31, 2024 and 2023, respectively, and some of them will subsequently be transferred to intangible assets.

(3) The Group capitalized ₩96,216 million of borrowing costs in relation to the acquisition of property, plant and equipment (for the year ended December 31, 2023, were ₩58,015 million). The capitalization rate of borrowings used to determine the amount of borrowing costs eligible for capitalization is 4.62% (for the year ended December 31, 2023, was 3.93%).

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(4) Line items including depreciation in the consolidated statements of profit or loss for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>		<u>2023</u>	
Cost of sales	₩	2,629,770	₩	1,970,703
Selling and administrative expenses		<u>219,675</u>		<u>173,481</u>
	<u>₩</u>	<u>2,849,445</u>	<u>₩</u>	<u>2,144,184</u>

(5) Lease

1) Amounts recognized in the consolidated statements of financial position

Details of amounts recognized in the consolidated statements of financial position in relation to lease for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>		<u>December 31, 2023</u>	
Right-of-use assets (*):				
Real estate	₩	331,260	₩	147,546
Machinery		733		561
Vehicles		16,369		15,460
Tools		4,068		1,736
Equipment		<u>1,110</u>		<u>781</u>
	<u>₩</u>	<u>353,540</u>	<u>₩</u>	<u>166,084</u>

(*) Included in 'Property, plant and equipment' in the consolidated statements of financial position.

Additions to the right-of-use assets for the year ended December 31, 2024, are ₩253,705 million (for the year ended December 31, 2023, were ₩97,347 million).

	<u>December 31, 2024</u>		<u>December 31, 2023</u>	
Lease liabilities (*):				
Current	₩	77,154	₩	53,997
Non-current		<u>258,952</u>		<u>92,363</u>
	<u>₩</u>	<u>336,106</u>	<u>₩</u>	<u>146,360</u>

(*) Included in 'Borrowings' in the consolidated statements of financial position.

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2) Amounts recognized in the consolidated statements of profit or loss

Details of amounts recognized in the consolidated statements of profit or loss in relation to lease for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Depreciation of right-of-use assets:		
Real estate	₩ 62,316	₩ 39,423
Machinery	337	271
Vehicles	9,720	8,519
Tools	1,245	680
Equipment	306	189
	<u>₩ 73,924</u>	<u>₩ 49,082</u>
Interest expense relating to lease liabilities (included in finance cost)	₩ 9,522	₩ 2,288
Expense relating to short-term leases (included in cost of goods sold and administrative expenses)	24,863	19,899
Expense relating to leases of low-value assets that are not short-term leases (included in cost of goods sold and administrative expenses)	7,754	7,278

Total cash outflow for leases for the year ended December 31, 2024, is ₩112,551 million (for the year ended December 31, 2023, was ₩66,941 million).

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12. INTANGIBLE ASSETS:

(1) Changes in intangible assets for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024									
	Software		Industrial Property Rights		Memberships		Others		Total	
	₩		₩		₩		₩		₩	
Beginning	₩	565,299	₩	277,038	₩	19,094	₩	14,562	₩	875,993
Acquisition/Transfer		319,686		106,048		4,563		14,011		444,308
Disposal/Transfer		(6,454)		(1,413)		(2,600)		(172)		(10,639)
Exchange differences		20,185		-		17		(4,037)		16,165
Amortization		(158,099)		(24,921)		-		(6,719)		(189,739)
Business Combination		26,872		-		-		122,195		149,067
Impairment		(579)		-		-		-		(579)
Ending	₩	<u>766,910</u>	₩	<u>356,752</u>	₩	<u>21,074</u>	₩	<u>139,840</u>	₩	<u>1,284,576</u>
	2023									
	Software		Industrial Property Rights		Memberships		Others		Total	
	₩		₩		₩		₩		₩	
Beginning	₩	396,957	₩	221,408	₩	14,909	₩	8,816	₩	642,090
Acquisition/Transfer		276,054		78,404		5,269		4,675		364,402
Disposal/Transfer		(1,870)		(1,220)		(1,083)		(179)		(4,352)
Exchange differences		9,205		-		(1)		1,424		10,628
Amortization		(114,944)		(21,554)		-		(174)		(136,672)
Impairment		(103)		-		-		-		(103)
Ending	₩	<u>565,299</u>	₩	<u>277,038</u>	₩	<u>19,094</u>	₩	<u>14,562</u>	₩	<u>875,993</u>

(2) Line items including amortization of intangibles in the consolidated statements of profit or loss for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024		2023	
Cost of sales	₩	56,403	₩	33,597
Selling and administrative expenses		<u>133,336</u>		<u>103,075</u>
	₩	<u>189,739</u>	₩	<u>136,672</u>

(3) The total amount of research and development expenses recognized by the Group is ₩1,058,001 million (for the year ended December 31, 2023, was ₩991,287 million).

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(4) Greenhouse gas emission right

1) The amount of allocated greenhouse gas emission rights for the domestic third plan period (2021-2025) is as follows (ton in thousands):

	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Allocated emission rights	281	332(*1)	360(*2)	297	297

(*1) An additional 32,000 tons have been allocated due to the expansion of the workplace discharge facility in addition to the initial free amount 300,000 tons of allocated greenhouse gas emission rights.

(*2) An additional 60,000 tons have been allocated due to the determination of emissions for 2023 in addition to the initial free amount 300,000 tons of allocated greenhouse gas emission rights.

2) Based on the Korea Emission Trading Scheme, changes in greenhouse gas emission rights (included in other intangible assets) for the years ended December 31, 2024 and 2023, are as follows (ton in thousands and Korean won in millions):

	<u>2024</u>					
	<u>2023</u>		<u>2024</u>		<u>2025</u>	
	<u>Ton</u>	<u>Amount</u>	<u>Ton</u>	<u>Amount</u>	<u>Ton</u>	<u>Amount</u>
Beginning/allocated	360	₩ -	297	₩ -	297	₩ -
Purchase/sale	7	171	-	-	-	-
Borrowing/carried over	-	-	-	-	-	-
Government submission	(367)	(171)	-	-	-	-
Ending	<u>-</u>	<u>₩ -</u>	<u>297</u>	<u>₩ -</u>	<u>297</u>	<u>₩ -</u>

	<u>2023</u>							
	<u>2022</u>		<u>2023</u>		<u>2024</u>		<u>2025</u>	
	<u>Ton</u>	<u>Amount</u>	<u>Ton</u>	<u>Amount</u>	<u>Ton</u>	<u>Amount</u>	<u>Ton</u>	<u>Amount</u>
Beginning/allocated	332	₩ -	300	₩ -	297	₩ -	297	₩ -
Purchase/sale	23	179	-	-	-	-	-	-
Borrowing/carried over	3	-	-	-	-	-	-	-
Government submission	(358)	(179)	-	-	-	-	-	-
Ending	<u>-</u>	<u>₩ -</u>	<u>300</u>	<u>₩ -</u>	<u>297</u>	<u>₩ -</u>	<u>297</u>	<u>₩ -</u>

3) Based on the European Union Emission Trading System, changes in greenhouse gas emission rights (included in other intangible assets) for the year ended December 31, 2024 and 2023, are as follows (ton in thousands and Korean won in millions):

	<u>2024</u>		<u>2023</u>	
	<u>Ton</u>	<u>Amount</u>	<u>Ton</u>	<u>Amount</u>
Beginning	153	₩ 13,809	87	₩ 8,002
Increase	74	6,120	170	16,875
Decrease	(115)	(8,361)	(104)	(11,068)
Ending	<u>112</u>	<u>₩ 11,568</u>	<u>153</u>	<u>₩ 13,809</u>

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13. OTHER CURRENT AND NON-CURRENT ASSETS:

Details of other current and other non-current assets as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Current:		
Prepayments and prepaid expenses	₩ 376,556 ₩	220,761
Prepaid value-added tax	204,939	170,951
Others	625,869	535,394
	<u>₩ 1,207,364 ₩</u>	<u>927,106</u>
Non-current:		
Long-term prepayments and long-term prepaid expenses	₩ 480,546 ₩	267,209
Net defined benefit assets	142,766	156,509
Others	78	73
	<u>₩ 623,390 ₩</u>	<u>423,791</u>

14. BORROWINGS:

(1) Borrowings as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Current:		
Short-term borrowings	₩ 1,291,015 ₩	1,576,437
Current portion of long-term borrowings	997,160	937,127
Current portion of debentures	124,911	643,895
Current lease liabilities	77,154	53,997
	<u>₩ 2,490,240 ₩</u>	<u>3,211,456</u>
Non-current:		
Long-term borrowings	₩ 4,865,830 ₩	4,512,180
Debentures	7,775,529	3,116,289
Non-current lease liabilities	258,952	92,363
	<u>12,900,311</u>	<u>7,720,832</u>
	<u>₩ 15,390,551 ₩</u>	<u>10,932,288</u>

(2) Details of borrowings as of December 31, 2024 and 2023, are as follows:

1) Short-term borrowings (Korean won in millions)

	<u>Bank</u>	<u>Interest rate (%)</u>	<u>Longest maturity date</u>	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Bank loans	SMBC and others	3.59 ~ 5.33	2025.11.07	₩ 1,291,015 ₩	1,576,437

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2) Long-term borrowings (Korean won in millions)

		December 31, 2024					
	Bank	Interest rate (%)	Longest maturity date	Amount			
				Current portion	Non-current portion		
Borrowings in foreign currencies	ANZ/HSBC/JP M and others	3M SOFR + 0.70	2032.10.25	₩ 897,958	₩ -	₩ 897,958	
	DBS	3M EURIBOR + 0.90	2026.05.24	305,374	-	305,374	
	DOE	6M EURIBOR + 1.00	2031.12.15	2,544,236	176,436	2,367,800	
	EBRD	3.65-4.55	2026.10.15	137,418	76,343	61,075	
	EIB	6M EURIBOR + 0.62	2027.03.31	407,166	162,867	244,299	
	KDB/Exim/ Nonghyup	3M EURIBOR + 0.47	2027.04.26	1,458,866	564,942	893,924	
	KDB/Exim/ Nonghyup and others	3M SOFR + 1.62	2030.12.20	65,226	-	65,226	
	SMBC	0.48	2027.02.04	34,355	15,269	19,086	
	China	LPR(1Y) - 0.30	2027.11.19	11,930	1,193	10,737	
	China						
	China Construction Bank	LPR(1Y) - 0.66	2027.12.26	461	110	351	
					<u>₩ 5,862,990</u>	<u>₩ 997,160</u>	<u>₩ 4,865,830</u>
			December 31, 2023				
		Bank	Interest rate (%)	Longest maturity date	Amount		
Current portion					Non-current portion		
Borrowings in foreign currencies	Citibank	3M EURIBOR + 0.62	2024.08.19	₩ 143,097	₩ 143,097	₩ -	
	DBS	3M EURIBOR + 0.90	2026.03.10	143,097	-	143,097	
	DOE	3.65-4.55	2031.12.15	2,209,255	-	2,209,255	
	EBRD	6M EURIBOR + 0.62	2026.10.15	200,336	71,549	128,787	
	EIB	3M EURIBOR + 0.47	2027.03.31	534,227	152,636	381,591	
	KDB	3M LIBOR + 0.91	2024.01.25	62,295	62,295	-	
	KDB/Exim/ Nonghyup	3M EURIBOR + 0.89-1.04	2027.04.26	1,448,668	83,175	1,365,493	
	KDB/Exim/ Nonghyup and others	3M SOFR + 1.62	2030.12.20	55,997	-	55,997	
	KEB Hana	3M EURIBOR + 0.62	2024.02.15	286,194	286,194	-	
	MUFG	6M EURIBOR + 0.80	2024.01.18	71,549	71,549	-	
	SMBC	0.48	2027.02.04	46,507	14,310	32,197	
	China: Agricultural Bank	LPR(1Y) - 0.70	2024.09.10	39,785	39,785	-	
	China	LPR(1Y) - 0.65-1.00	2025.06.14	106,565	12,537	94,028	
	China Construction Bank	LPR(1Y) - 1.00	2026.05.24	101,735	-	101,735	
				<u>₩ 5,449,307</u>	<u>₩ 937,127</u>	<u>₩ 4,512,180</u>	

The Group has entered into loan agreements stipulating that a loss of benefit of term will occur if the agreed ratio under the covenant is not maintained based on the half-year or full fiscal year. As of the end of the current period, the relevant amount is KRW 3.1 trillion, and the covenant ratios have been complied with.

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3) Debentures (USD in thousands and Korean won in millions)

	December 31, 2024					
	Financial institution	Interest rate (%)	Longest maturity date	Amount	Current portion	Non-current portion
	NH					
1 st Debenture (non-guaranteed/public)	Investment & Securities Co., Ltd. and others	2.214	2026.03.13	₩ 200,000	₩ -	₩ 200,000
2-1 st Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.097	2025.06.29	125,000	125,000	-
2-2 nd Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.196	2026.06.29	370,000	-	370,000
2-3 rd Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.298	2028.06.29	505,000	-	505,000
3-1 st Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	3.806	2026.02.16	180,000	-	180,000
3-2 nd Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	3.889	2027.02.16	660,000	-	660,000
3-3 rd Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.054	2029.02.16	570,000	-	570,000
3-4 th Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.202	2031.02.16	190,000	-	190,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	3.625	2029.04.15	735,000 (USD 500,000)	-	735,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.625	2026.09.25	588,000 (USD 400,000)	-	588,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.750	2028.09.25	882,000 (USD 600,000)	-	882,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.375	2027.07.02	1,029,000 (USD 700,000)	-	1,029,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.375	2029.07.02	1,176,000 (USD 800,000)	-	1,176,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.500	2034.07.02	735,000 (USD 500,000)	-	735,000
Less: discount on debentures		-	-	(44,560)	(89)	(44,471)
				<u>₩ 7,900,440</u>	<u>₩ 124,911</u>	<u>₩ 7,775,529</u>

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		December 31, 2023					
		Financial institution	Interest rate (%)	Longest maturity date	Amount	Current portion	Non-current portion
		NH					
1 st Debenture (non-guaranteed/public)	Investment & Securities Co., Ltd. and others	2.214	2026.03.13	₩	200,000 ₩	-	₩ 200,000
2-1 st Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.097	2025.06.29		125,000	-	125,000
2-2 nd Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.196	2026.06.29		370,000	-	370,000
2-3 rd Debenture (non-guaranteed/public)	KB Securities Co., Ltd. and others	4.298	2028.06.29		505,000	-	505,000
USD foreign currency debenture (non-guaranteed)	Citibank and others	3.250	2024.10.15		644,700 (USD 500,000)	644,700	-
USD foreign currency debenture (non-guaranteed)	Citibank and others	3.625	2029.04.15		644,700 (USD 500,000)	-	644,700
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.625	2026.09.25		515,760 (USD 400,000)	-	515,760
USD foreign currency debenture (non-guaranteed)	Citibank and others	5.750	2028.09.25		773,640 (USD 600,000)	-	773,640
Less: discount on debentures	-	-	-		(18,616)	(805)	(17,811)
					<u>₩ 3,760,184</u>	<u>₩ 643,895</u>	<u>₩ 3,116,289</u>

The Group has entered into debenture agreements stipulating that a loss of benefit of term will occur if the agreed ratio under the covenant is not maintained based on the reporting for each quarter, half-year, or full fiscal year. As of the end of the current period, the relevant amount is KRW 2.7 trillion, and the covenant ratios have been complied with.

4) Lease liabilities (Korean won in millions)

		December 31, 2024					
		Interest rate (%)	Longest maturity date	Amount	Current portion	Non-current portion	
Baeksan industry and others		0.67 ~ 8.42	2053.11.15	₩	336,106 ₩	77,154 ₩	258,952
		December 31, 2023					
		Interest rate (%)	Longest maturity date	Amount	Current portion	Non-current portion	
Baeksan industry and others		0.67 ~ 5.01	2053.11.15	₩	146,360 ₩	53,997 ₩	92,363

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15. PROVISIONS:

Changes in provisions for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

2024					
	Warranty(*1)	Greenhouse gas emission(*2)	Other provisions (*3)	Total	
Beginning	₩ 1,274,437	₩ 8,966	₩ 102,890	₩ 1,386,293	
Business combination	1,807	-	-	1,807	
Provision transfer	1,039,336	10,733	24,357	1,074,426	
Used	(621,664)	(8,531)	(9,177)	(639,372)	
Ending	1,693,916	11,168	118,070	1,823,154	
Less: current portion	(921,985)	(11,168)	(111,315)	(1,044,468)	
	<u>₩ 771,931</u>	<u>₩ -</u>	<u>₩ 6,755</u>	<u>₩ 778,686</u>	
2023					
	Warranty(*1)	Greenhouse gas emission(*2)	Other provisions (*3)	Total	
Beginning	₩ 1,482,900	₩ 8,712	₩ 4,118	₩ 1,495,730	
Business combination					
Additions	745,932	11,502	98,772	856,206	
Used	(954,395)	(11,248)	-	(965,643)	
Ending	1,274,437	8,966	102,890	1,386,293	
Less: current portion	(411,499)	(8,966)	(96,705)	(517,170)	
	<u>₩ 862,938</u>	<u>₩ -</u>	<u>₩ 6,185</u>	<u>₩ 869,123</u>	

(*1) Warranty provisions have been accrued for the estimated warranty costs to be incurred due to quality control, exchange and refunds with regard to products based on historical experience. In addition, provisions related to replacement costs due to ESS replacement costs and voluntary automotive battery recalls are included. The provision amount is adjusted to reflect the best estimate.

(*2) In relation to greenhouse gas emissions, the Group estimates the expected future costs of emissions exceeding the Group's emission rights for the year and recognizes them as provisions. Estimated emissions are 415 thousand tons for the year ended December 31, 2024 (were 440 thousand tons as of December 31, 2023).

(*3) In addition to provisions for warranties and greenhouse gases, the Group has reasonably estimated the probable amount of resource outflow embodying economic benefits as a present obligation resulting from past events and recognized it on.

16. NET DEFINED BENEFIT LIABILITIES (ASSETS):

(1) Details of net defined benefit liabilities (assets) as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Present value of defined benefit obligations (*1)	₩ 667,476	₩ 673,251
Fair value of plan assets	(809,839)	(829,521)
	<u>₩ (142,363)</u>	<u>₩ (156,270)</u>
Net defined benefit liabilities	403	239
Net defined benefit assets (*2)	<u>(142,766)</u>	<u>(156,509)</u>
	<u>₩ (142,363)</u>	<u>₩ (156,270)</u>

(*1) The present value of retirement benefit obligations is the amount after deducting contributions to the National Pension Plan of ₩26 million as of December 31, 2024 (as of December 31, 2023, was ₩35 million).

(*2) The ₩142,766 million of plan assets exceeding the defined benefit obligations of the Parent Company is included in other non-current assets as of December 31, 2024 (as of December 31, 2023, was ₩156,509 million).

(2) The amounts recognized in the consolidated statements of profit or loss for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Current service cost	₩ 94,277	₩ 78,442
Interest cost	(7,252)	(12,016)
	<u>₩ 87,025</u>	<u>₩ 66,426</u>

(3) Retirement benefits recognized for the defined contribution plan for the year ended December 31, 2024, amounted to ₩26,128 million (for the year ended December 31, 2023, were ₩2,835 million).

(4) Line items, including retirement benefits recognized in the consolidated statements of profit or loss, for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Cost of sales	₩ 41,732	₩ 27,832
Selling and administrative expenses	71,421	41,429
	<u>₩ 113,153</u>	<u>₩ 69,261</u>

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(5) Changes in the present value of defined benefit obligations for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Beginning	₩ 673,251	₩ 549,225
Transfer in	2,495	12,516
Transfer out	(1,572)	(2,426)
Current service cost	94,277	78,442
Interest expense	31,080	28,988
Remeasurements:		
Actuarial loss from change in financial assumption	(69,888)	45,794
Actuarial gain from change in demographic assumption	1,906	1,824
Actuarial gain due to the difference between the estimated and the actual	(3,502)	(8,634)
Others	-	(2,002)
Foreign currency conversion difference	-	(46)
Payments from plans	(60,571)	(30,430)
Ending	<u>₩ 667,476</u>	<u>₩ 673,251</u>

(6) Changes in the fair value of plan assets for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Beginning	₩ 829,521	₩ 771,244
Plan assets transferred through transfer between affiliates	(760)	(125)
Interest income	38,332	41,004
Remeasurements:		
Return on plan assets (excluding amounts included in interest income)	(4,941)	1,665
Contribution:		
Employer contribution to plan assets	706	43,899
Payments from plans	(51,404)	(26,916)
Administrative costs	(1,615)	(1,250)
Ending	<u>₩ 809,839</u>	<u>₩ 829,521</u>

(7) The actual return on plan assets for the year ended December 31, 2024, was ₩33,391 million (for the year ended December 31, 2023, was ₩42,669 million).

(8) The significant actuarial assumptions as of December 31, 2024 and 2023, are as follows:

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Discount rate	4.10%	4.70%
Expected salary growth rate	3.96%	5.33%

(9) The sensitivity analysis for changes in key actuarial assumptions as of December 31, 2024, is as follows (Korean won in millions):

	<u>Increase by 1.0%</u>	<u>Decrease by 1.0%</u>
Discount rate:		
(Decrease) increase in defined benefit liabilities	₩ (75,057)	₩ 89,396
Expected salary growth rate:		
Increase in defined benefit liabilities	92,464	(78,637)

A decrease in corporate bond yields may lead most significantly to an increase in defined benefit liabilities.

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The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The sensitivity of the defined benefit obligation to changes in actuarial assumptions is calculated using the projected unit credit method, the same method applied when calculating the defined benefit obligations recognized in the consolidated statements of financial position.

The methods and assumptions used for the sensitivity analyses are the same as those of the previous period.

(10) Plan assets as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024		December 31, 2023	
	Amount	Composition (%)	Amount	Composition (%)
Insurance contracts with guaranteed yield	₩ 809,839	100	₩ 829,521	100

Plan assets consist of guaranteed debt instruments and others which have no quoted market prices in an active market.

(11) The weighted-average remaining maturity of the defined benefit obligation at the end of the year ended December 31, 2024, is 13.11 years

The Group reviews the level of the fund every year and has a policy to compensate for any loss in the fund. The estimated contribution for the year ended December 31, 2025, is ₩87,913 million.

17. OTHER CURRENT AND NON-CURRENT LIABILITIES:

Details of other current and non-current liabilities as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024	December 31, 2023
Current:		
Advances from customers	₩ 98,034	₩ 177,044
Withholdings	67,923	61,588
Unearned revenues	44,333	79,640
Accrued expenses and others	197,886	297,492
	<u>₩ 408,176</u>	<u>₩ 615,764</u>
Non-current:		
Long-term accrued expenses	₩ 34,494	₩ 28,593
Long-term unearned revenues	97,008	114,097
Long-term advance received	2,390,974	1,279,493
	<u>₩ 2,522,476</u>	<u>₩ 1,422,183</u>

18. COMMITMENTS AND CONTINGENCIES:

- (1) The Group is jointly liable with LG Chem Ltd. for liabilities recognized before the split-off date.
- (2) As of December 31, 2024, the Group has been guaranteed by Seoul Guarantee Insurance Company for the execution of contracts and others.
- (3) As of December 31, 2024, the Group has various specific lines of credit agreements with several financial institutions as follows (Korean won in millions and foreign currencies in millions):

	Currency	December 31, 2024	
		The Parent Company	Certain subsidiaries
Limit of the letter of credit	USD	12	108
	CNY	-	859
Limit of discount of notes from export	USD	680	-
Limit of guaranteed payments in other foreign currency	USD	375	144
	CNY	-	560
Business-to-business purchase arrangements	KRW	125,000	-
	USD	-	6,473
General loan agreements	CNY	-	11,620
	EUR	-	2,636
	KRW	600,000	-
	USD	2,366	620
Derivatives	EUR	-	210
	KRW	400,000	30,000
Factoring arrangements	KRW	150,000	-

- (4) As of December 31, 2024, the Group has entered into payment guarantee contracts of USD 44 million, EUR 5 million with financial institutions in relation to product warranty for certain installed products. Also, certain subsidiaries have entered into payment guarantee contracts of CNY 305 million with financial institutions in relation to customs clearance of imported raw materials.
- (5) As of December 31, 2024, the Group has entered into an arrangement with General Motors (“GM”) regarding joint investment in Ultium Cells Holdings LLC and Ultium Cells LLC, whereby each party can sell its shares to third parties in eight years after the inception of the contract. In addition, if one party defaults, the other party has the right to purchase shares from the other party. In this regard, the Group has completed the government's approval process for the use of core technologies in accordance with the Industrial Technology Protection Act.
- (6) The Group has been sued and is involved in 5 class actions by consumers in relation to the sales of mobile batteries and GM Bolt EV, and these actions are still in process as of December 31, 2024. The Group has also been sued in 50 other cases (amounting to ₩1,818 million) and has filed 5 lawsuit cases (amounted to USD 234 million and ₩646 million). The ultimate outcome of these pending cases cannot be determined at the reporting date.
- (7) The Group has entered into a license agreement with LG Corp. to use trademarks on the products that the Group manufactures and sells, and on the services the Group provides in relation to its business.

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- (8) As of December 31, 2024, the Group has entered into a joint venture agreement with Honda and has committed to invest USD 1,802 million and has contributed USD 1,317 million as of the end of December 31, 2024. Also, the Group has decided to provide a payment guarantee of USD 450 million to the joint venture, determined by its proportionate ownership of the borrowed amount up to a maximum limit of USD 883 million. In addition, if one party defaults, the other party has the right to purchase shares from the others.
- (9) As of December 31, 2024, the Group has entered into a joint venture agreement with Stellantis and has committed to invest USD 1,464 million and has contributed USD 1,020 million as of the end of December 31, 2024. In addition, if one party defaults, the other party has the right to purchase shares from the other party. Also, the Group has decided to provide a payment guarantee of USD 686 million to the joint venture, determined by its proportionate ownership of the borrowed amount up to a maximum limit of USD 1,344 million.
- (10) As of December 31, 2024, the Group has entered into a joint venture agreement with HMG Global LLC and has committed to invest USD 1,108 million and has contributed USD 540 million as of the end of December 31, 2024. After the expiration of the contract period, each party can sell its shares to third parties. In addition, if one party defaults, the other party has the right to purchase shares from the other party.
- (11) As of December 31, 2024, the Group has entered into a commitment of USD 2,048 million for the construction of a new plant for LG Energy Solution Arizona, Inc.
- (12) Capital expenditure arrangements that have not been incurred as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Property, plant and equipment	₩ 9,319,087	₩ 8,421,551

- (13) Investment commitments as of December 31, 2024, are as follows (Korean won in millions and USD in million):

	<u>Currency</u>	<u>Contractual amount</u>	<u>Total investments</u>	<u>Remaining amount</u>
BNZ (Beyond Net Zero) Fund	USD	75	43	32
Secondary Battery Growth Fund	KRW	6,700	4,677	-
KBE(Korea Battery ESG) Fund	KRW	75,000	55,893	19,107
BCM Global Battery Fund	KRW	30,000	19,143	10,857
Yonsei Technology Holdings IP Fund	KRW	3,000	2,040	960

- (14) As of December 31, 2024 and 2023, the Group has entered into a payment guarantee for the borrowings of ₩285,602 million, and the details are as follows:

<u>Guarantor</u>	<u>Guarantee</u>	<u>Financial Instruments</u>	<u>Loan amount(*1)</u>		<u>Credit limit(*2)</u>	
			<u>December 31, 2024</u>	<u>December 31, 2023</u>	<u>December 31, 2024</u>	<u>December 31, 2023</u>
LG Energy Solution, Ltd.	PT. HLI Green Power(*3)	ANZ and others	₩ -	₩ 285,602	₩ -	₩ 458,382

(*1) The amounts represent the borrowed amount as of December 31, 2024 and 2023.

(*2) The limits indicate the aggregate amount of payment guarantees.

(*3) The entity was included in the consolidated financial statements during the year ended December 31, 2024.

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19. SHARE CAPITAL:

Changes in share capital and share premium for the year ended December 31, 2024, are as follows (Korean won in millions and shares):

	<u>Ordinary shares</u>		
	<u>Number of shares</u>	<u>Share capital</u>	<u>Share premium</u>
December 31, 2023	234,000,000	₩ 117,000	₩ 17,589,722
Changes	-	-	-
December 31, 2024	234,000,000	₩ 117,000	₩ 17,589,722

20. RETAINED EARNINGS:

Details of retained earnings as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Unappropriated retained earnings	₩ 1,397,211	₩ 2,364,496

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21. OPERATING PROFITS:

(1) The major items encompassed in the calculation of operating profits for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Revenue (*1)	₩ 25,619,585	₩ 33,745,470
Cost of sales	<u>22,213,605</u>	<u>28,802,437</u>
Gross profit	3,405,980	4,943,033
Other operating income (*2)	1,480,020	676,874
Selling and administrative expenses:		
Wages and salaries	₩ 889,288	₩ 864,951
Retirement benefits	71,421	41,429
Employee benefits	226,456	207,477
Travel expenses	64,062	64,146
Water and utilities	84,794	70,366
Rental expenses	49,795	69,225
Commission expenses	722,632	625,119
Depreciation	226,275	179,504
Advertising expenses	38,744	27,948
Freight expenses	95,057	121,256
Training expenses	29,604	32,117
Amortization	133,336	103,075
Sample expenses	16,675	5,949
Development costs	210,408	192,956
Addition of warranty provisions	1,039,336	745,932
Others	<u>412,730</u>	<u>105,223</u>
	4,310,613	3,456,673
Operating profits	<u>₩ 575,387</u>	<u>₩ 2,163,234</u>

(*1) Revenue includes customer compensation amounting to ₩1,365,723 million. The Group considers the nature of the compensation and the terms of the agreements and determines the timing of revenue recognition by identifying performance obligations in each customer contract.

(*2) Under the Advanced Manufacturing Production Tax Credit of the U.S. Inflation Reduction Act, effective January 1, 2023, the tax credit can be received for battery cells/modules produced and sold in the U.S., and the amount above is expected to be received by the Group for the year ended December 31, 2024.

(2) Consolidated revenue of the Group consists of sales of battery-related products and service sales, such as research and development, of which most of the sales are recognized at a time in relation to the sales of goods.

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22. CLASSIFICATION OF EXPENSES BY NATURE:

Cost of sales and selling and administrative expenses by nature for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Changes in inventories of merchandise, finished goods, semifinished goods, and work in process	₩ 628,223	₩ 1,066,592
Raw materials and consumables used	12,638,632	19,906,565
Purchase of merchandise	1,038,877	1,167,956
Employee benefit expenses	2,808,673	2,657,455
Advertising expenses	40,099	28,457
Freight expenses	112,860	144,050
Commission expenses	1,360,226	1,074,576
Depreciation and amortization	3,045,784	2,286,879
Rent expenses and usage fee	48,882	58,201
Addition of warranty provisions	1,039,336	745,932
Other expenses	3,762,626	3,122,447
	<u>₩ 26,524,218</u>	<u>₩ 32,259,110</u>

23. EMPLOYEE BENEFIT EXPENSES:

Details of employee benefit expenses for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Wages and salaries	₩ 2,257,486	₩ 2,198,113
Retirement benefits: defined benefit plan	87,025	66,426
Retirement benefits: defined contribution plan	26,128	2,835
Others	438,034	390,081
	<u>₩ 2,808,673</u>	<u>₩ 2,657,455</u>

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24. FINANCE INCOME AND COSTS:

Details of finance income and costs for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Finance income		
Interest income (*1)	₩ 222,769	₩ 177,840
Dividend income	198	99
Exchange differences	416,477	771,456
Gain on derivatives	402,671	35,589
Gain on disposal of financial assets at FVPL	728	-
Gain on valuation of financial assets at FVPL	5,500	-
	<u>₩ 1,048,343</u>	<u>₩ 984,984</u>
Finance costs		
Interest expense (*2)	₩ 564,200	₩ 315,752
Exchange differences	680,538	466,259
Loss on disposal of trade receivables	46	6,270
Loss on derivatives	744	68,920
Loss on valuation of financial assets at FVPL	15,051	-
	<u>₩ 1,260,579</u>	<u>₩ 857,201</u>

(*1) Details of interest income for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Cash and cash equivalents and others	₩ 163,070	₩ 149,287
Other loans and receivables	59,699	28,553
	<u>₩ 222,769</u>	<u>₩ 177,840</u>

(*2) Details of interest expense for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Interest on financial institutions	₩ 367,168	₩ 269,064
Interest on financial lease liabilities	9,522	2,288
Interest on debentures	271,931	93,008
Other interest expenses	11,795	9,407
Capitalized interest for qualifying assets	(96,216)	(58,015)
	<u>₩ 564,200</u>	<u>₩ 315,752</u>

25. OTHER NON-OPERATING INCOME:

Details of other non-operating income for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Exchange differences	₩ 713,625	₩ 1,091,443
Gain on disposal of investments in joint ventures	104,512	-
Gain on bargain purchase	10,294	-
Others	30,380	34,403
	<u>₩ 858,811</u>	<u>₩ 1,125,846</u>

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26. OTHER NON-OPERATING EXPENSES:

Details of other non-operating expenses for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Exchange differences	₩ 471,539	₩ 992,959
Loss on disposal of property, plant and equipment	196,335	140,421
Loss on disposal of intangible asset	1,226	814
Loss on disposal of investments in associates and disposal loss	10,294	14,561
Donations	9,689	8,260
Others	<u>134,890</u>	<u>183,938</u>
	<u>₩ 823,973</u>	<u>₩ 1,340,953</u>

27. INCOME TAX EXPENSE AND DEFERRED TAX:

(1) Details of income tax benefit for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Current tax on profit for the period	₩ 491,177	₩ 507,196
Adjustment for past income tax	(28,693)	29,222
Deferred tax – movement in temporary differences	(183,283)	256,560
Non-recognition of deferred tax on tax credit carryforwards	318,081	-
Changes in deferred tax – tax credit carryforwards	(239,479)	(249,104)
Changes in deferred tax – tax loss carryforwards	<u>(399,780)</u>	<u>(219,097)</u>
	<u>(41,977)</u>	<u>324,777</u>
Deferred tax changed directly to equity	(3,393)	51,408
Others	<u>55,639</u>	<u>29,290</u>
	<u>₩ 10,269</u>	<u>₩ 405,475</u>

(2) The aggregate deferred tax charged directly to equity (other comprehensive income) for the years ended December 31, 2024 and 2023, is as follows: (Korean won in millions)

	<u>2024</u>	<u>2023</u>
Remeasurements of net defined benefit liabilities	₩ (15,239)	₩ 8,076
Gain and losses on valuation of financial assets at FVOCI	(1,030)	29,731
Gain and losses on valuation of derivative instruments	(462)	(3)
Consolidation adjustment	13,338	8,409
Others	<u>-</u>	<u>5,195</u>
	<u>₩ (3,393)</u>	<u>₩ 51,408</u>

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(3) Changes in deferred tax assets (liabilities) for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024					
	Increase (decrease)					Ending
	Beginning	Profit (loss) for the period	Other comprehensive Income (loss)	Exchange differences	Others	
Defined benefit liabilities	₩ 139,692	₩ 15,503	₩ (15,239)	₩ (1)	₩ -	₩ 139,955
Plan assets	(157,905)	7,209	-	-	-	(150,696)
Provisions	251,484	19,858	-	15,463	-	286,805
Property, plant and equipment	78,394	52,727	-	(4,525)	-	126,596
Intangible assets	3,356	(214)	-	380	-	3,522
Investments in subsidiaries, associates and joint ventures	(16,098)	(265,197)	-	(24,887)	-	(306,182)
Government grants	225,110	19,639	-	26,685	-	271,434
Succession of assets (property, plant and equipment)	55,338	2,649	-	-	-	57,987
Succession of assets (patents)	485,419	(2,570)	-	-	-	482,849
Succession of assets (others)	533	-	-	-	-	533
Others	129,039	290,932	(1,492)	33,375	(355)	451,499
	<u>1,194,362</u>	<u>140,536</u>	<u>(16,731)</u>	<u>46,490</u>	<u>(355)</u>	<u>1,364,302</u>
Tax credit carryforwards	437,967	(81,491)	-	2,888	-	359,364
Tax loss carryforwards	564,476	388,906	-	10,873	-	964,255
Others	12,161	-	13,338	-	-	25,499
Deferred tax assets (liabilities)	<u>₩ 2,208,966</u>	<u>₩ 447,951</u>	<u>₩ (3,393)</u>	<u>₩ 60,251</u>	<u>₩ (355)</u>	<u>₩ 2,713,420</u>

	2023					
	Increase (decrease)					Ending
	Beginning	Profit (loss) for the period	Other comprehensive Income (loss)	Exchange differences	Business combination and others	
Defined benefit liabilities	₩ 130,247	₩ 1,369	₩ 8,076	₩ -	₩ -	₩ 139,692
Plan assets	(185,722)	27,817	-	-	-	(157,905)
Provisions	360,338	(118,898)	-	10,044	-	251,484
Property, plant and equipment	135,489	(63,982)	-	6,887	-	78,394
Intangible assets	4,646	(1,539)	-	249	-	3,356
Investments in subsidiaries, associates and joint ventures	(104,662)	88,564	-	-	-	(16,098)
Government grants	214,793	11,234	-	(917)	-	225,110
Succession of assets (property, plant and equipment)	67,476	(12,138)	-	-	-	55,338
Succession of assets (patents)	564,426	(79,007)	-	-	-	485,419
Succession of assets (others)	615	(82)	-	-	-	533
Others	265,250	(183,620)	34,923	12,529	(43)	129,039
	<u>1,452,896</u>	<u>(330,282)</u>	<u>42,999</u>	<u>28,792</u>	<u>(43)</u>	<u>1,194,362</u>
Tax credit carryforwards	189,183	249,104	-	(320)	-	437,967
Tax loss carryforwards	346,311	219,097	-	(932)	-	564,476
Others	3,752	-	8,409	-	-	12,161
Deferred tax assets (liabilities)	<u>₩ 1,992,142</u>	<u>₩ 137,919</u>	<u>₩ 51,408</u>	<u>₩ 27,540</u>	<u>₩ (43)</u>	<u>₩ 2,208,966</u>

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(4) The reconciliations between income tax expense and accounting profit for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Net profit before tax	₩ 348,871	₩ 2,043,460
Tax at domestic tax rates	(59,845)	400,545
Tax effects:		
Income not subject to tax	(288,761)	(180,843)
Expenses not deductible for tax purposes	20,962	2,858
Effect of deferred tax recognition on temporary differences in prior periods	20,223	(55,342)
Effect of non-recognition of deferred tax on temporary differences	51,289	84,668
Tax credit	(248,669)	(4,556)
Effect of non-recognition of deferred tax on tax credit carryforwards	318,081	-
Foreign tax	192,312	110,621
Others	4,677	47,524
Income tax expense	<u>₩ 10,269</u>	<u>₩ 405,475</u>
Effective tax rate (income tax expense/profit before tax)	2.94%	19.84%

(5) The future feasibility of deferred tax assets depends on a variety of factors, including the Group's ability to generate taxable income during the period when the temporary difference is realized, the overall economic environment and industry prospects. The Group reviews these factors periodically.

(6) Temporary differences that have not been recognized as deferred tax assets (liabilities) as of December 31, 2024, are ₩1,982,007 million related to investments in subsidiaries, associates and joint ventures. (As of December 31, 2023, were ₩2,013,851 related to investments in subsidiaries, associates and joint ventures, and ₩65,603 million related to unused tax loss carryforwards.)

(7) The maturity of unused tax loss as of December 31, 2024 and 2023, is as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Less than 1 year	₩ -	₩ 6,982
Between 1 year – 2 years	-	57,562
Between 2 – 5 years	-	1,059
More than 5 years	-	-

(8) Non-recognition of deferred tax on tax credit carryforwards

The amount and expiration date of non-recognition of deferred tax on tax credit carryforwards as of December 31, 2024, are as follows (Korean won in millions):

	<u>2033</u>	<u>2034</u>	<u>Total</u>
Non-recognition of deferred tax on tax credit carryforwards	₩ 132,635	₩ 185,446	₩ 318,081

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28. EARNINGS(LOSSES) PER SHARE:

Basic earnings(losses) per share are calculated by dividing the earnings(losses) attributable to ordinary shares of the Parent Company by weighted-average number of shares issued.

Basic earnings(losses) per ordinary share (Korean won in millions and in number of shares):

	<u>2024</u>	<u>2023</u>
Profits(losses) attributable to ordinary shares	₩ (1,018,741)	₩ 1,237,180
Weighted-average number of ordinary shares outstanding	<u>234,000,000</u>	<u>234,000,000</u>
Basic earnings(losses) per ordinary share (in Korean won)	<u>₩ (4,354)</u>	<u>₩ 5,287</u>

The Group did not issue any potential ordinary shares. Therefore, basic earnings(losses) per share are identical to diluted earnings(losses) per share.

29. DIVIDEND:

The Group (foreign subsidiary) paid ₩201,580 million dividends for the accounting period ended December 31, 2024.

30. RELATED-PARTY TRANSACTIONS:

- (1) As of December 31, 2024, the Parent Company is LG Chem Ltd. (percentage of ownership: 81.84%), over which LG Corp. exercises a significant influence.
- (2) Details of other related parties that have sales and other transactions with the Group or have receivable and payable balances, other than associates and joint ventures (see Note 10) as of December 31, 2024, are as follows:

<u>Related party</u>	<u>Related party's subsidiary (Domestic)</u>	<u>Related party's subsidiary (Overseas)</u>	<u>Details</u>
LG Chem Ltd.	HAENGBOKNURI CO., LTD. and others	LEYOU NEW ENERGY MATERIALS (WUXI) Co., Ltd. and others	Subsidiary of LG Chem Ltd.
D&O Co., Ltd.	D&O CM, Ltd. and others.	D&O CM NANJING and others	
LG CNS Co., Ltd.	Biz Tech I Co., Ltd. and others	LG CNS America Inc. and others	Subsidiary of LG Corp.
LG Management Development Institute			
LG Display Co., Ltd.	Nanum nuri Co., Ltd.	LG Display (China) Co., Ltd. and others	
LG Electronics, Inc.	LG Innotek Co., Ltd. and others	LG Electronics Philippines, Inc. and others	
LG Household & Health Care Ltd.	Coca-Cola Beverage Co. and others	LG Household & Health Care Trading(Shanghai) Co., Ltd. and others	LG Enterprise group (*1)
LG Uplus Corp.	LG HelloVision Corp	LG UPLUS FUND I LLC. and others	
HS AD Inc.		GIIR America Inc. and others	
Mintech Co., Ltd. (*2)			

(*1) Although these entities are not related parties of the Group in accordance with K-IFRS 1024, they belong to a large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(*2) Although the Company holds less than 20% of the shares in the form of redeemable convertible preference shares, it has significant influence, as it holds the right to appoint directors. Meanwhile, the Company classifies these shares as financial assets at FVPL, taking into account the nature of the shares held and K-IFRS 1109.

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(3) Transactions with related parties for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024				
	Purchase and others				
	Sales and others	Purchase of raw materials /merchandises	Acquisition of property, plant and equipment and intangibles	Interest expense	Others
Parent:					
LG Chem Ltd.	₩ 5,649	₩ 1,758,321	₩ 768	₩ 19	₩ 13,808
Associates and joint ventures:					
PT. HLI Green Power (*2)	38,094	363	-	-	6,393
Sama Aluminium Co., Ltd.	-	44,440	-	-	-
Nexpo Co., Ltd.	-	94	-	-	-
Other related parties:					
LG Corp.	20	-	-	-	39,469
LG Chem (China) Investment Co., Ltd.	-	-	-	-	193
LG Chem Europe GmbH	-	-	-	-	8
HAENGBOKNURI CO., LTD.	7	-	-	-	1,239
LEYOU NEW ENERGY MATERIALS (WUXI) Co., Ltd.	-	1,194,172	-	-	-
LG HY BCM Co., Ltd.	-	612,395	-	-	-
Techwin, Inc.	-	-	10,403	-	72
LG Chem Poland Sp. z o.o.	-	160,882	-	-	-
LG Management Development Institute	-	-	-	-	33,845
D&O Co., Ltd. and its subsidiaries	86	-	23,597	-	7,078
LG CNS Co., Ltd. and its subsidiaries	24,854	56	914,308	-	212,212
Others	-	-	141	-	1,883
Others:					
LG Display Co., Ltd. and its subsidiaries	-	-	-	8	-
LG Electronics Inc. and its subsidiaries	157,169	178,609	940,438	-	171,938
Xi C&A and its subsidiaries (*1)	-	2,725	44,655	-	2,701
S&I Corporation (*1)	-	3,027	7,610	-	18,230
Others	37	-	223	15	5,418
	<u>₩ 225,916</u>	<u>₩ 3,955,084</u>	<u>₩ 1,942,143</u>	<u>₩ 42</u>	<u>₩ 514,487</u>

(*1) During the current period, the Company has been excluded from the large enterprise group after its separation from LG Group during the year ended December 31, 2024. The amount includes transactions before the separation.

(*2) During the current period, the Group reclassified PT. HLI Green Power from a joint venture to a subsidiary due to amendments in the shareholder agreement. The above amount pertains to transactions prior to this reclassification.

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	2023				
	Sales and others	Purchase and others			
		Purchase of raw materials /merchandises	Acquisition of property, plant and equipment and intangible assets	Interest expense	Others
Parent:					
LG Chem Ltd.	₩ 72,314	₩ 3,052,896	₩ 1,146	₩ 30	₩ 3,600
Associates and joint ventures:					
PT. HLI Green Power	46,252	-	-	-	3,327
VINFAST LITHIUM BATTERY PACK LLC (*)	256	-	-	-	-
Sama Aluminium Co., Ltd.	-	32,901	-	-	-
Mintech Co., Ltd.	-	-	206	-	10
Other related parties:					
LG Corp.	-	-	-	-	61,325
LG Chem America, Inc.	-	-	-	-	3
LG Chem (Taiwan), Ltd.	-	-	-	1	-
LG Chem (China) Investment Co., Ltd.	-	-	-	-	260
LG Chem Europe GmbH	-	-	-	-	34
HAENGBOKNURI CO., LTD.	5	-	-	-	560
LEYOU NEW ENERGY MATERIALS (WUXI) Co., Ltd.	-	1,683,282	-	-	-
LG HY BCM Co., Ltd.	-	81	-	-	-
Techwin, Inc.	-	-	14,970	-	7,414
LG Chem Poland Sp. z o.o.	-	224,546	-	-	-
LG Management Development Institute	11	-	-	-	29,846
D&O Co., Ltd. and its subsidiaries	83	-	22,645	-	3,959
LG CNS Co., Ltd. and its subsidiaries	36,850	224	671,399	-	179,589
Others	-	-	-	-	4,065
Others:					
LG Display Co., Ltd. and its subsidiaries	-	-	-	9	-
LG Electronics Inc. and its subsidiaries	2,130,801	312,332	817,222	-	30,507
Xi C&A and its subsidiaries	-	2,693	256,832	-	690
S&I Corporation	-	8,970	43,451	-	64,580
Others	44	3	1,179	29	4,649
	<u>₩ 2,286,616</u>	<u>₩ 5,317,928</u>	<u>₩ 1,829,050</u>	<u>₩ 69</u>	<u>₩ 394,418</u>

(*) During the year ended December 31, 2023, the Group disposed of its entire ownership interest and was excluded from the related party.

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(4) Balances of receivables and payables from related parties as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024							
	Receivables			Payables				
	Trade receivables	Other receivables	Total	Trade payables	Lease liabilities	Other payables	Total	
Parent:								
LG Chem Ltd.	₩	- ₩	8,644 ₩	8,644 ₩	353,330 ₩	550 ₩	4,111 ₩	357,991
Associates and joint ventures:								
Sama Aluminium Co., Ltd.	-	-	-	8,627	-	22	-	8,649
Nexpo Co., Ltd.	-	-	-	17	-	-	-	17
Other related parties:								
LG Corp.	-	22,043	22,043	-	-	-	-	-
LG Chem (Taiwan), Ltd.	-	-	-	-	-	6	-	6
LG Chem (China) Investment Co., Ltd.	-	-	-	-	-	37	-	37
HAENGBOKNURI CO., LTD.	-	-	-	-	-	99	-	99
LEYOU NEW ENERGY MATERIALS(WUXI) Co., Ltd.	-	4	4	211,239	-	-	-	211,239
LG HY BCM Co., Ltd.	-	-	-	91,223	-	1,050	-	92,273
Techwin, Inc	-	-	-	-	-	302	-	302
LG Chem Poland Sp. z o.o.	-	-	-	37,626	-	-	-	37,626
LG Management Development Institute	-	-	-	-	-	750	-	750
D&O Co., Ltd. and its subsidiaries	-	-	-	-	-	4,887	-	4,887
LG CNS Co., Ltd. and its subsidiaries	5,149	5	5,154	-	-	443,178	-	443,178
Others	-	-	-	-	-	117	-	117
Others:								
LG Display Co., Ltd. and its subsidiaries	-	-	-	-	63	18	-	81
LG Electronics Inc. and its subsidiaries (*)	37,092	2,256	39,348	16,242	-	321,485	-	337,727
Others	-	559	559	-	335	5,191	-	5,526
	<u>₩</u>	<u>₩</u>	<u>₩</u>	<u>₩</u>	<u>₩</u>	<u>₩</u>	<u>₩</u>	<u>₩</u>
	42,241	33,511	75,752	718,304	948	781,253	-	1,500,505

(*) Provisions for the GM Bolt EV recall are not included in the balance of receivables and payables above.

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	December 31, 2023						
	Receivables			Payables			
	Trade receivables	Other receivables	Total	Trade payables	Lease liabilities	Other payables	Total
Parent:							
LG Chem Ltd.	₩ 19,062	₩ 15,319	₩ 34,381	₩ 410,997	₩ 1,100	₩ 3,581	₩ 415,678
Associates and joint ventures:							
PT. HLI Green Power	-	4,006	4,006	-	-	45,778	45,778
Sama Aluminium Co., Ltd.	-	-	-	3,769	-	-	3,769
Other related parties:							
LG Corp.	-	-	-	-	-	15,025	15,025
LG Chem (Taiwan), Ltd.	-	-	-	-	-	10	10
LG Chem (China) Investment Co., Ltd.	-	-	-	-	-	51	51
LEYOU NEW ENERGY MATERIALS(WUXI) Co., Ltd.	-	2	2	156,692	-	-	156,692
LG HY BCM Co., Ltd.	-	-	-	-	-	210	210
Techwin, Inc.	-	-	-	-	-	2,186	2,186
LG Chem Poland Sp. z o.o.	-	-	-	52,049	-	-	52,049
LG Management Development Institute	-	-	-	-	-	680	680
D&O Co., Ltd. and its subsidiaries	-	23	23	-	-	8,194	8,194
LG CNS Co., Ltd. and its subsidiaries	7,859	107	7,966	280	-	371,328	371,608
Others	-	-	-	-	-	348	348
Others:							
LG Display Co., Ltd. and its subsidiaries	-	-	-	-	277	19	296
LG Electronics Inc. and its subsidiaries (*)	225,439	4,341	229,780	45,524	-	296,622	342,146
Xi C&A and its subsidiaries	-	-	-	-	-	57,447	57,447
S&I Corporation	-	-	-	-	-	35,304	35,304
Others	-	559	559	-	1,006	4,734	5,740
	<u>₩ 252,360</u>	<u>₩ 24,357</u>	<u>₩ 276,717</u>	<u>₩ 669,311</u>	<u>₩ 2,383</u>	<u>₩ 841,517</u>	<u>₩ 1,513,211</u>

(*) Provisions for the GM Bolt EV recall are not included in the balance of receivables and payables above.

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(5) Fund transactions with related parties for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024							
	Dividends received	Dividends paid	Equity contribution in cash and others	Loan transactions		Borrowing transactions (*)		
				Loan	Repayment	Borrowing	Repayment	
Parent:								
LG Chem Ltd.	₩	- ₩	- ₩	- ₩	- ₩	- ₩	- ₩	531
Associates and joint ventures:								
Sama Aluminium Co., Ltd.		150	-	-	-	-	-	-
Nexpo Co., Ltd.		-	-	1,900	-	-	-	-
Bricks Capital Management Global Battery Private Equity Fund I		-	-	5,761	-	-	-	-
Others:								
LG DISPLAY AMERICA, INC.		-	-	-	-	-	-	191
LG Household & Health Care		-	-	-	-	-	-	656
	<u>₩</u>	<u>150 ₩</u>	<u>- ₩</u>	<u>7,661 ₩</u>	<u>- ₩</u>	<u>- ₩</u>	<u>- ₩</u>	<u>1,378</u>

(*) The amounts represent lease liabilities that were recognized or repaid during the year ended December 31, 2024.

	2023							
	Dividends received	Dividends paid	Equity contribution in cash and others	Loan transactions		Borrowing transactions (*)		
				Loan	Repayment	Borrowing	Repayment	
Parent:								
LG Chem Ltd.	₩	- ₩	- ₩	- ₩	- ₩	- ₩	- ₩	520
Associates and joint ventures:								
Sama Aluminium Co., Ltd.		-	-	46,575	-	-	-	-
Nexpo Co., Ltd.		-	-	2,375	-	-	-	-
Mintech Co., Ltd.		-	-	7,020	-	-	-	-
Bricks Capital Management Global Battery Private Equity Fund I		-	-	13,381	-	-	-	-
Other related parties:								
LG Chem (Taiwan), Ltd.		-	-	-	-	-	-	107
Others:								
LG DISPLAY AMERICA, INC.		-	-	-	-	-	-	178
LG Household & Health Care		-	-	-	-	-	-	641
	<u>₩</u>	<u>- ₩</u>	<u>- ₩</u>	<u>69,351 ₩</u>	<u>- ₩</u>	<u>- ₩</u>	<u>- ₩</u>	<u>1,446</u>

(*) The amounts represent lease liabilities that were recognized or repaid during the year ended December 31, 2023.

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(6) Compensation for key management of the Group for the years ended December 31, 2024 and 2023, is as follows (Korean won in millions):

	2024		2023	
Short-term employee benefits	₩	35,057	₩	67,741
Retirement benefits		9,669		8,137
	₩	44,726	₩	75,878

Key management includes directors (including non-executive) having duties and responsibilities over planning, operations and controlling of the Group's business activities.

(7) The details of the payment guarantees provided by the Group for related parties as of December 31, 2024 and 2023, are disclosed in Note 18.

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31. CONSOLIDATED STATEMENTS OF CASH FLOWS:

(1) Details of cash generated from operations for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Profit before income tax	₩ 348,871	₩ 2,043,460
Adjustments for:		
- Depreciation	2,856,045	2,150,207
- Amortization	189,739	136,672
- Retirement benefits	87,025	66,426
- Financial income	(1,000,780)	(647,884)
- Financial costs	1,239,158	560,504
- Foreign currency conversion differences	(9,254)	65,557
- Loss on valuations of inventories	404,928	68,003
- Gain on disposal of property, plant and equipment and intangible assets	(9,870)	(4,461)
- Loss on disposal of property, plant and equipment and intangible assets	197,561	141,235
- Impairment losses on property, plant and equipment and intangible assets	27,108	165,966
- Gain on disposal of investments in associates	(104,512)	-
- Loss on impairment and disposal of investments in associates	10,294	14,561
- Changes in contract assets	1,438	(59,389)
- Contribution to provisions	1,060,324	856,538
- Other income	36,640	33,653
- Changes in inventories	984,159	1,934,269
- Changes in trade receivables	663,809	(164,947)
- Changes in other receivables	95,226	(80,770)
- Changes in other current assets	(373,331)	(242,923)
- Settlement of derivatives	-	(3,153)
- Changes in trade payables	(923,897)	(926,531)
- Changes in other payables	(152,272)	(331,491)
- Changes in other current liabilities	1,169,038	649,758
- Changes in provisions	(639,372)	(965,643)
- Changes in net defined benefit liabilities	(6,575)	(35,948)
- Other cash flows from operations	(126,822)	(50,211)
Cash generated from operations	<u>₩ 6,024,678</u>	<u>₩ 5,373,458</u>

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(2) Changes in liabilities arising from financial activities for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024						
	<u>Beginning</u>	<u>Cash flows from financing activities(*)</u>	<u>Reclassification of current portion</u>	<u>Amortization</u>	<u>Lease liabilities</u>	<u>Exchange differences and others</u>	<u>Ending</u>
Short-term borrowings	₩ 2,567,561	₩ (1,948,129)	₩ 68,070	₩ -	₩ -	₩ 1,677,827	₩ 2,365,329
Long-term borrowings	4,604,543	396,483	(68,070)	-	235,545	(43,719)	5,124,782
Debentures	3,760,184	3,652,604	-	8,739	-	478,913	7,900,440
	<u>₩ 10,932,288</u>	<u>₩ 2,100,958</u>	<u>₩ -</u>	<u>₩ 8,739</u>	<u>₩ 235,545</u>	<u>₩ 2,113,021</u>	<u>₩ 15,390,551</u>

(*) The difference from cash flows from financing activities is due to the settlement of derivative transactions arising from the redemption of bonds.

	2023						
	<u>Beginning</u>	<u>Cash flows from financing activities</u>	<u>Reclassification of current portion</u>	<u>Amortization</u>	<u>Lease liabilities</u>	<u>Exchange differences and others</u>	<u>Ending</u>
Short-term borrowings	₩ 2,191,623	₩ (986,718)	₩ 896,526	₩ -	₩ -	₩ 466,130	₩ 2,567,561
Long-term borrowings	3,782,596	1,875,296	(896,526)	-	70,820	(227,643)	4,604,543
Debentures	2,135,034	1,597,493	-	3,470	-	24,187	3,760,184
	<u>₩ 8,109,253</u>	<u>₩ 2,486,071</u>	<u>₩ -</u>	<u>₩ 3,470</u>	<u>₩ 70,820</u>	<u>₩ 262,674</u>	<u>₩ 10,932,288</u>

(3) Significant non-cash transactions for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Reclassification of construction in progress	₩ 6,090,891	₩ 4,187,452
Reclassification of machinery in transit	22,912	34,069
Reclassification of debentures into current portion	124,911	643,895
Changes in other payables related to acquisitions of property, plant and equipment and intangible assets	1,131,111	702,396
Changes in other non-current financial liabilities related to acquisitions of property, plant and equipment	1,000,200	-

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32. SEGMENT INFORMATION:

(1) General information about the Group's reportable segments is as follows:

<u>Segment</u>	<u>Major products and services</u>
LG Energy solution (*)	Automotive batteries, mobile batteries, ESS batteries and others

(*) The Group has determined the reporting segment as a single reporting segment based on the performance evaluation reported to the board of directors, the chief operating decision-maker.

(2) Segment information on revenue and profit for the years ended December 31, 2024 and 2023, is as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Total segment revenue	₩ 25,619,585	₩ 33,745,470
Revenue from external customers (*1)	25,619,585	33,745,470
Other operation income (*2)	1,480,020	676,874
Operating profit of reportable segment (*3)	575,387	2,163,234

(*1) Revenue from external customers consists of sales of goods. Interest income and dividend income are included in finance income.

(*2) Under the Advanced Manufacturing Production Tax Credit of the U.S. Inflation Reduction Act, effective January 1, 2023, the tax credit can be received for battery cells/modules produced and sold in the U.S., and the amount above is expected to be received by the Group for the year ended December 31, 2024.

(*3) Management assesses the performance of the operating segments based on a measurement of operating profit of segment.

(3) Segment information on assets and liabilities as of December 31, 2024 and 2023, is as follows (Korean won in millions):

	<u>December 31, 2024</u>			<u>December 31, 2023</u>		
	<u>Investments in associates and joint ventures</u>			<u>Investments in associates and joint ventures</u>		
	<u>Assets</u>	<u>Liabilities</u>	<u>Liabilities</u>	<u>Assets</u>	<u>Liabilities</u>	<u>Liabilities</u>
Reportable segment assets and liabilities	₩ 60,306,791	₩ 62,389	₩ 29,340,248	₩ 45,437,144	₩ 223,559	₩ 21,063,635

(4) Sales for the years ended December 31, 2024 and 2023, and non-current assets as of December 31, 2024 and 2023, by geographical segments, are as follows (Korean won in millions):

	<u>Sales</u>		<u>Non-current assets (*1)</u>	
	<u>2024</u>	<u>2023</u>	<u>December 31, 2024</u>	<u>December 31, 2023</u>
	₩		₩	₩
Korea (*2)	1,747,024	2,412,430	5,204,504	4,310,996
China	5,039,840	6,081,926	3,972,006	4,251,338
Asia/Oceania	1,054,808	1,397,941	1,238,630	1,126
America	10,748,929	11,854,610	24,579,109	11,104,415
Europe	7,028,980	11,998,563	4,865,813	5,075,284
Others	4	-	-	-
	₩ 25,619,585	₩ 33,745,470	₩ 39,860,062	₩ 24,743,159

(*1) Represents aggregate amount of property, plant and equipment; intangible assets; and investment properties.

(*2) Domestic sales include exports made through local letters of credit.

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(5) For the year ended December 31, 2024, revenues from external customers who account for 10% or more of the Group's revenue amounted to ₩6,090,940 million, ₩4,534,908 million and ₩3,114,723 million, respectively (for the year ended December 31, 2023, were ₩6,135,823 million, ₩5,711,817 million and ₩4,266,716 million, respectively).

33. ASSETS AND LIABILITIES RELATED TO CONTRACTS WITH CUSTOMERS:

(1) Assets and liabilities related to contracts with customers as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Contract assets:		
Due from customers	₩ 77,237	₩ 70,356
	<u>₩ 77,237</u>	<u>₩ 70,356</u>
Contract liabilities:		
Advances from customers received as part of the Group's main business activities	₩ 2,046,780	₩ 1,292,914
Expected customer incentives	1,535	1,660
Unearned revenue	32,099	70,055
Due to customers	<u>7,377</u>	<u>2,785</u>
	<u>₩ 2,087,791</u>	<u>₩ 1,367,414</u>

(2) Revenue recognized in relation to contract liabilities

Revenues recognized from the carried-forward contract liabilities for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>2024</u>	<u>2023</u>
Revenue recognized in the current period from the beginning contract liabilities:		
Revenues in relation to advances from customers received as part of the Group's main business activities	₩ 62,709	₩ 165,483
Unearned revenue	33,859	51,915
Due to customers	<u>850</u>	<u>12,361</u>
	<u>₩ 97,418</u>	<u>₩ 229,759</u>

(3) For the year ended December 31, 2024, changes in estimates related to the total contract price and total contract costs for contracts that existed as of December 31, 2023, and recognize revenue over time using the cost-to-cost method, along with their impact on profit or loss for the current and future periods and on contract assets (liabilities), are as follows (Korean won in millions):

	<u>Changes in estimated total contract price</u>	<u>Changes in estimated total contract costs</u>	<u>Impact on current period profit or loss</u>	<u>Impact on future period profit or loss</u>	<u>Changes in contract assets (liabilities)</u>
₩	5,379	₩ 7,954	₩ 2,669	₩ (5,244)	₩ 2,669

(4) Costs to fulfill contracts as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	<u>December 31, 2024</u>	<u>December 31, 2023</u>
Costs to fulfill contracts	₩ 328,943	₩ 103,206

Costs to fulfill contracts represent preparation costs related to contracts with customers and are recognized as cost of sales when the Group satisfies its performance obligations. The costs to fulfill contracts recognized as cost of sales during the year ended December 31, 2024, amounted to ₩60,223 million (for the year ended December 31, 2023, was ₩184,945 million).

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34. INVESTMENT PROPERTIES:

(1) Details of investment properties as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024				December 31, 2023			
	Acquisition cost	Accumulated depreciation	Accumulated impairment	Book value	Acquisition cost	Accumulated depreciation	Accumulated impairment	Book value
Buildings	₩ 309,064	₩ (81,729)	₩ (1,628)	₩ 225,707	₩ 295,848	₩ (81,878)	₩ (1,721)	₩ 212,249
Land	274	(12)	(35)	227	283	(8)	(35)	240
	<u>₩ 309,338</u>	<u>₩ (81,741)</u>	<u>₩ (1,663)</u>	<u>₩ 225,934</u>	<u>₩ 296,131</u>	<u>₩ (81,886)</u>	<u>₩ (1,756)</u>	<u>₩ 212,489</u>

(2) Changes in investment properties for the years ended December 31, 2024 and 2023, are as follows (Korean won in millions):

	2024		2023	
	Land	Building	Land	Building
Beginning	₩ 240	₩ 212,249	₩ 245	₩ 212,797
Acquisition/Transfer	-	28,053	-	6,500
Disposal/Transfer	(9)	(7,999)	-	(1,030)
Depreciation	(4)	(6,596)	(5)	(6,018)
Ending	<u>₩ 227</u>	<u>₩ 225,707</u>	<u>₩ 240</u>	<u>₩ 212,249</u>

(3) The fair value of investment properties is measured either by independent professional appraisers with certified qualification or measured based on official appraised value of land and available information from recent transactions of similar properties, and it is classified as 'Level 3' of the fair value hierarchy. The fair value of investment properties as of December 31, 2024, is ₩241,006 million (as of December 31, 2023, was ₩245,247 million).

Rental income from investment properties under operating lease for the year ended December 31, 2024, is ₩7,722 million, and operating expenses incurred for investment properties that generated rental income (including maintenance and repair expenses) for the year ended December 31, 2023, are ₩6,600 million.

(4) Operating lease

Investment properties are leased to tenants under operating leases with monthly rent payments. Where considered necessary to reduce credit risk, the Group may obtain bank guarantees for the term of the lease.

Although the Group is exposed to changes in the residual value at the end of the current leases, the Group typically enters into new operating leases and, therefore, will not immediately realize any reduction in residual value at the end of these leases. Expectations about the future residual values are reflected in the fair value of investment properties.

The future minimum lease payments expected to be received in relation to the above operating lease agreement for investment properties as of December 31, 2024 and 2023, are as follows (Korean won in millions):

	December 31, 2024	December 31, 2023
Less than 1 year	₩ 7,652	₩ 150
Between 1– 2 years	2,293	150
Between 2 – 5 years	172	299
	<u>₩ 10,117</u>	<u>₩ 599</u>

35. BUSINESS COMBINATION:

As of August 1, 2024, due to amendments to the shareholder agreement of PT. HLI Green Power, the Group holds the majority of voting rights in the decision-making process of the entity and has the ability to affect the variable returns by engaging in the entity's production and cost management. As a result, the Group reclassified PT. HLI Green Power from joint venture to a subsidiary.

1) The consideration transferred to PT. HLI Green Power and the fair values of assets and liabilities acquired at the acquisition are as follows (Korean won in millions):

	<u>Amount</u>
Consideration transferred:	
Fair value of the equity interest held prior to the business combination	₩ 191,187
Accumulated amount of acquired assets and assumed liabilities:	
Cash and cash equivalents	59,825
Trade receivables and other receivables	118,338
Inventories	144,834
Property, plant and equipment	1,026,339
Intangible assets	149,067
Other assets	44,615
Trade payables and other payables	(293,584)
Other liabilities	(846,472)
Identifiable net assets	402,962
Non-controlling interest:	201,481
Goodwill (gain on bargain purchase):	(10,294)

2) As of December 31, 2024, the fair value assessment has been completed and the purchase price allocation has been finalized based on the facts and circumstances existing as of the acquisition date.

3) The remeasurement of the equity interests held prior to the business combination at fair value resulted in a disposal gain of ₩94,218 million, which is included in other non-operating income and expenses in the consolidated statements of comprehensive income.

4) Sales and net income of PT. HLI Green Power after the acquisition date reflected in the consolidated statements of profit or loss were ₩597,982 million and ₩78,602 million, respectively. If PT. HLI Green Power had been consolidated from January 1, 2024, the Group's sales and net income would have been recorded in the consolidated statements of comprehensive income as ₩25,774,204 million and ₩254,311 million, respectively.

36. EVENT AFTER THE REPORTING PERIOD:

The Group resolved to issue unsecured KRW bonds at the Management Committee held on January 24, 2025. The Group issued bonds worth ₩1,600,000 million in February 14, 2025.

4-1st Debenture: ₩640,000 million (maturity date: February 14, 2027)

4-2nd Debenture: ₩590,000 million (maturity date: February 14, 2028)

4-3rd Debenture: ₩310,000 million (maturity date: February 14, 2030)

4-4th Debenture: ₩60,000 million (maturity date: February 14, 2032)

37. DATE OF APPROVAL FOR ISSUANCE OF CONSOLIDATED FINANCIAL STATEMENTS:

The Group's consolidated financial statements were approved by the board of directors on January 24, 2025, and may be revised at the general meeting of shareholder.

Independent Auditor's Report on Consolidated Internal Control over Financial Reporting

**English Translation of Independent Auditor's Report on Consolidated Internal Control over Financial Reporting
Originally Issued in Korean on March 5, 2025**

To the Shareholders and the Board of Directors of LG Energy Solution, Ltd.:

Audit Opinion on Consolidated Internal Control over Financial Reporting

We have audited the consolidated internal control over financial reporting of LG Energy Solution, Ltd. and its subsidiaries (the "Group") as of December 31, 2024, based on 'Conceptual Framework for Design and Operation of Internal Control over Financial Reporting.'

In our opinion, the Group's consolidated internal control over financial reporting is designed and operated effectively as of December 31, 2024, in all material respects, in accordance with the 'Conceptual Framework for Design and Operation of Internal Control over Financial Reporting.'

We have also audited, in accordance with the Korean Standards on Auditing ("KSAs"), the consolidated financial statements of the Group, which comprise the consolidated statement of financial position as of December 31, 2024, and the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in shareholders' equity and consolidated statement of cash flows, for the years then ended, and notes to the consolidated financial statements, including material accounting policy information, and our report dated March 5, 2025, expressed an unqualified opinion.

Basis for Audit Opinion

We conducted our audits in accordance with the KSAs. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audits of the Consolidated Internal Control over Financial Reporting section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audits of the consolidated internal control over financial reporting in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Internal Control over Financial Reporting

Management is responsible for designing, operating and maintaining effective consolidated internal control over financial reporting and for its assessment of the effectiveness of consolidated internal control over financial reporting, included in the accompanying Report on the Operation of Consolidated Internal Control over Financial Reporting.

Those charged with governance are responsible for the oversight of consolidated internal control over financial reporting of the Group.

Auditor's Responsibilities for the Audits of the Consolidated Internal Control over Financial Reporting

Our responsibility is to express an opinion on the Group's consolidated internal control over financial reporting based on our audits. We conducted our audits in accordance with the KSAs. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective consolidated internal control over financial reporting was maintained in all material respects.

The audit of consolidated internal control over financial reporting involves performing procedures to obtain audit evidence about whether a material weakness exists. The procedures selected depend on the auditor's judgment, including the assessment of the risks of that a material weakness exists. The audit includes obtaining an understanding of consolidated internal control over financial reporting and testing and evaluating the design and operating effectiveness of consolidated internal control over financial reporting based on the assessed risks.

Deloitte.

Definition and Limitations of Consolidated Internal Control over Financial Reporting

The Group's consolidated internal control over financial reporting is a process implemented by those charged with governance, management and other personnel, and designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with Korean International Financial Reporting Standards ("K-IFRSs"). The Group's consolidated internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Group; (2) provide reasonable assurance that transactions are recorded, as necessary, to permit preparation of consolidated financial statements in accordance with K-IFRSs, and that receipts and expenditures of the Group are being made only in accordance with authorizations of management and directors of the Group; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Group's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, consolidated internal control over financial reporting may not prevent or detect material misstatements in the financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that evaluation of, and projections to, the future periods may change as internal control over financial reporting becomes inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The engagement partner on the audit resulting in this independent auditor's report is Kiu Seok Seo.

Deloitte idnjin LLC

This report is effective as of March 5, 2025, the auditor's report date. Certain subsequent events or circumstances may have occurred between the auditor's report date and the time the auditor's report is read. Such events or circumstances could significantly affect the Group's internal control over financial reporting and may result in modifications to the auditor's report.

March 5, 2025

Report on the Operation of Consolidated Internal Control over Financial Reporting

English translation of a Report Originally Issued in Korean on January 24, 2025

To the Shareholders and the Board of Directors of LG Energy Solution, Ltd.:

We, as the Chief Executive Officer (“CEO”) and Internal Control over Financial Reporting (“ICFR”) Officer of LG Energy Solution, Ltd. (the “Parent Company”), assessed the status of the design and operation of the Group’s ICFR for the year ending December 31, 2024.

The Group’s management including the CEO and ICFR Officer is responsible for designing and operating ICFR. We, as the CEO and ICFR Officer (collectively, “We,” “Our” or “Us”), evaluated whether the ICFR has been appropriately designed and is effectively operating to prevent and detect error or fraud which may cause material misstatement of the consolidated financial statements to ensure preparation and disclosure of reliable consolidated financial information.

We used the ‘Conceptual Framework for Designing and Operating Internal Control over Financial Reporting’ established by the Operating Committee of Internal Control over Financial Reporting in Korea (the “ICFR Committee”)’ as the criteria for design and operation of the Group’s ICFR. We also conducted an evaluation of ICFR based on the ‘Management Guideline for Evaluating and Reporting Effectiveness of Internal Control over Financial Reporting’ established by the ICFR Committee.

Based on our assessment result, we concluded that the Group’s ICFR has been appropriately designed and is operating effectively in all material respects as of December 31, 2024, in accordance with the ‘Conceptual Framework for Designing and Operating Internal Control over Financial Reporting’.

We certify that this report does not contain any untrue statement of a fact or omit to state a fact necessary to be presented herein. We also certify that this report does not contain or present any statements, which might cause material misunderstandings of the readers, and we have reviewed and verified this report with sufficient due care.

January 24, 2025

Chang Sil Lee
Internal Control over Financial Reporting Officer

Dong Myung Kim
Chief Executive Officer