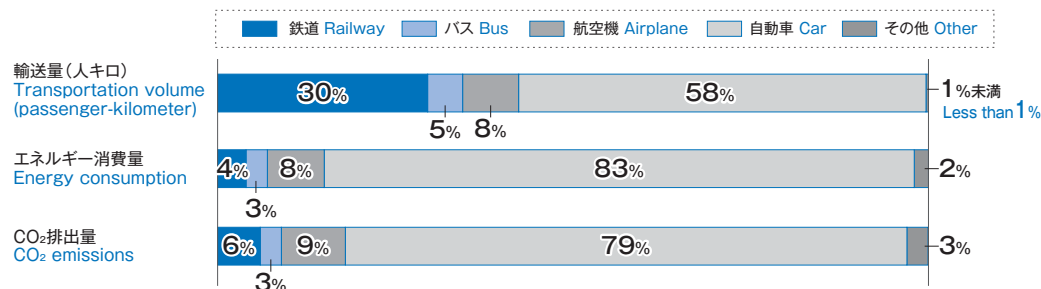


鉄道の環境優位性 Environmental Superiority of Railways

旅客輸送における輸送量・エネルギー消費量・CO₂排出量分担率

Distribution of Passenger Transportation Volume, Energy Consumption, and CO₂ Emissions



注 端数処理により、内訳の合計が100%にならない場合がある

出典 輸送量、エネルギー消費量：エネルギー・経済統計要覧（令和5（2023）年度）

CO₂排出量：国立環境研究所温室効果ガスインベントリオフィスのデータ（令和5（2023）年度）をもとに作成

Note: The totals for items in the breakdown may not be 100% due to rounding.

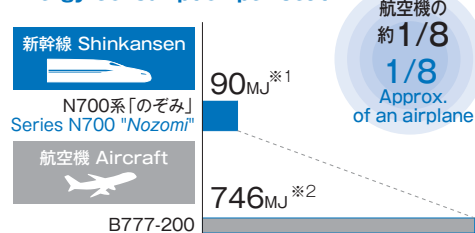
Source: For transportation volume/energy consumption, created based on data from Handbook of Energy & Economics Statistics (FY2023).

For CO₂ emissions, created based on data from the National Institute for Environmental Studies, Greenhouse Gas Inventory Office of Japan (FY2023).

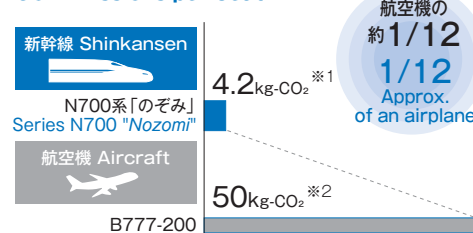
東海道新幹線と航空機の比較（東京～大阪）

Comparison of the Tokaido Shinkansen and Airplanes (between Tokyo and Osaka)

エネルギー消費量（1座席当たり） Energy Consumption per Seat



CO₂排出量（1座席当たり） CO₂ Emissions per Seat



注 1. 走行実績（当社）に基づく算出 N700系「のぞみ」（東京～新大阪）

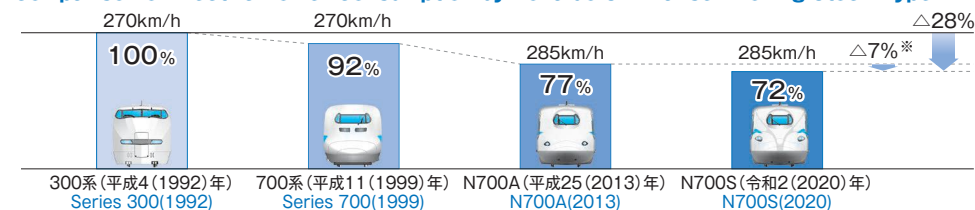
2. ANA「アニュアルレポート 2011」を参考に当社算出 B777-200（羽田～伊丹・関空）

Note: 1. Calculation based on running performance of Series N700 Nozomi (Tokyo - Shin-Osaka) conducted by JR Central.

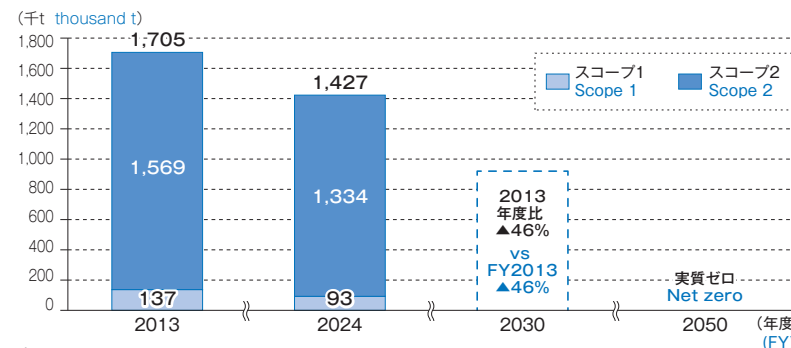
2. Calculated by JR Central using ANA's "Annual Report 2011" B777-200 (Haneda - Itami/Kansai Airport) for reference.

東海道新幹線の車種別電力消費量の比較

Comparison of Electric Power Consumption by Tokaido Shinkansen Rolling Stock Type



グループCO₂排出量 The JR Central Group's CO₂ emissions



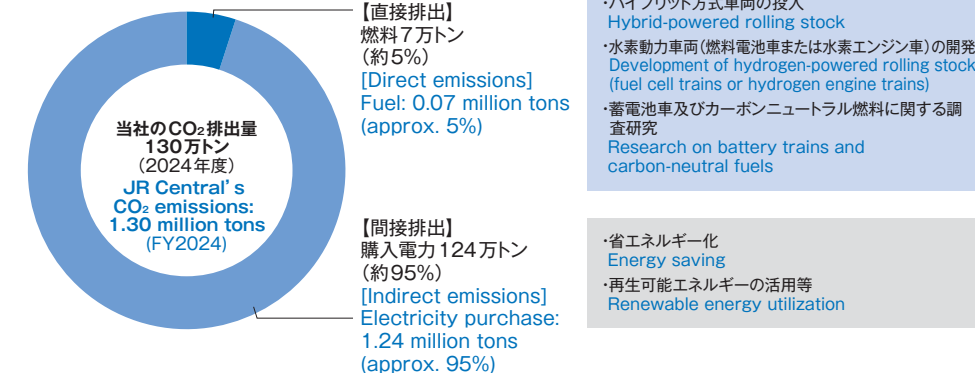
スコープ3排出量は約2,000千t*（JR東海単体）

* スコープ3排出量を推計するにあたっては多くの第三者からの情報提供等が必要ことから、広範な仮定のもとに算出した概算値であり、今後大きく変化する可能性があります。

Scope 3 emissions are approximately 2 million tons* (JR Central alone).

* Since estimating Scope 3 emissions requires information provided by many third parties, the figures are estimates based on a wide range of assumptions and may change significantly in the future.

CO₂削減の取組み Initiatives to reduce CO₂ emissions



・ハイブリッド方式車両の投入
Hybrid-powered rolling stock
・水素動力車両（燃料電池車または水素エンジン車）の開発
Development of hydrogen-powered rolling stock (fuel cell trains or hydrogen engine trains)
・蓄電池車及びカーボンニュートラル燃料に関する調査研究
Research on battery trains and carbon-neutral fuels

・省エネルギー化
Energy saving
・再生可能エネルギーの活用等
Renewable energy utilization

注 1. 東京～新大阪下りを上記の最高速度で走行した場合のシミュレーション

2. () 内は投入した年

※ 空調制御方式の最適化等の効果を含む

Note: 1. Simulated run from Tokyo to Shin-Osaka at the maximum speeds identified above.

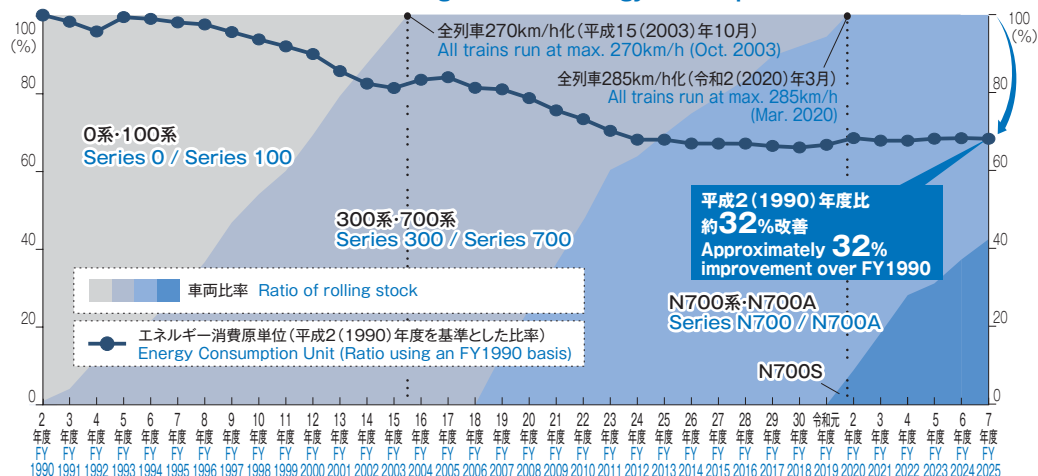
2. Years in parenthesis indicate introduction year of each rolling stock.

※ Includes effects of optimization of air conditioning control method, etc.

鉄道の環境優位性 Environmental Superiority of Railways

東海道新幹線の車両比率・エネルギー消費原単位

Ratio of the Tokaido Shinkansen Rolling Stock and Energy Consumption Unit



環境関連データ集 Environment-related data

2024年度の活動状況・環境会計 Activity status and environmental accounting for FY2024

2024年度の環境保全活動に関する投資・費用やそれに伴う効果を試算すると以下の通りです。

The investments, costs, and their principal effect involved in environment preservation activities during FY2024 are estimated as listed below.

環境会計 Environmental accounting

分類 Category	事項 Main Initiatives	環境保全コスト(億円)*1 Environment preservation cost (100 million yen)*1		付記 Notes
		投資額 Investment	費用 Expenses	
地球環境保全コスト Global environment preservation cost	●省エネルギー型車両の導入 ●駅やオフィスの省エネルギー化 等 ●Introduction of energy-conserving rolling stock ●Improved energy-efficiency at stations and office buildings	596.2	10.8	●省エネルギー型車両比率: 100% (新幹線電車)・100% (在来線(電車・気動車)) ●新幹線N700S車両新製 ●在来線315系、HC85系車両新製 ●Percentage of energy-conserving rolling stock: 100% (Shinkansen electric railcars), 100% (conventional line (electric railcars and diesel railcars)) ●New production of Shinkansen N700S rolling stock ●New production of conventional-line Series 315 and Series HC85 rolling stock
研究開発コスト Research and development cost	●省エネルギー型車両の開発 ●沿線環境保全に関する開発 等 ●Development of energy-conserving rolling stock ●Development related to environment preservation along railway lines	0.0	149.4	●N700Sの省エネルギー性能: ▲28% (300系比) ※300系(270km/h走行)とN700S(285km/h走行)の比較 ●Energy consumption by N700S: -28% (vs Series 300)* *Comparison between Series 300 (traveling at 270 km/h) and the N700S (traveling at 285 km/h)
資源循環コスト Resource recycling cost	●駅、列車ゴミ等の適正処理とリサイクル ●工場、工事発生品の適正処理とリサイクル ●Proper disposal and recycling of station and train refuse ●Proper disposal and recycling of items generated from workshops and construction work	0.1	137.3	●制服のリサイクル率: 原則 100% ●Recycle rate of uniforms: Basically 100%
沿線環境保全コスト Environment conservation cost along railway lines	●騒音、振動対策 ●環境負荷物質の適正管理 等 ●Countermeasures against noise and vibration ●Proper management of environmentally hazardous substances	69.2	49.5	●防音壁の嵩上げや改良、レール表面の削正等による沿線環境保全 ●Protection of the environment along railway lines by modifying noise-blocking walls and increasing their height, shaving rail surfaces, etc.
管理活動コスト Management activity cost	●環境広告 ●環境マネジメント教育 等 ●Environmental advertising ●Environmental management education, etc.	0.0	0.2	●技術開発部におけるISO14001の認証取得 ●The Technology Research and Development Department obtained ISO 14001 certification
合 計*2 Total*2		665.6	347.3	

※1 1千万円未満切り捨て ※2 端数処理により合計が合わない *1. Fractions below 10 million yen are omitted. *2. Totals do not add up due to rounding.

【環境保全コストの集計の考え方】 [Approach to environment preservation cost]

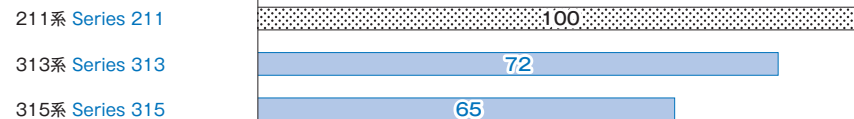
●集計範囲は当社単体です。 ●対象期間は、2024年4月1日～2025年3月31日です。 ●形式は、環境省の「環境会計ガイドライン2005年版」を参考としています。
●費用には、減価償却費を計上していません。 ●多目的の支出の場合、環境保全効果の高いものの全額を計上しています。
●Compilation is applicable only to JR Central. ●The applicable period is April 1, 2024 to March 31, 2025. ●“Environmental Accounting Guidelines 2005,” a publication of the Ministry of the Environment, was consulted with regard to aspects of style. ●Depreciation is not included in the calculations for expenditures. ●In the event of multiple-purpose expenditures, the full amount with greater environment preservation effect is included in the calculation.

在来線車両の電力・軽油消費量の比較

Comparison of Electricity Consumption and Diesel Fuel Consumption of Conventional Line Cars

在来線電車の電力消費量の比較

Comparison of Electricity Consumption of Conventional Line Electric Cars

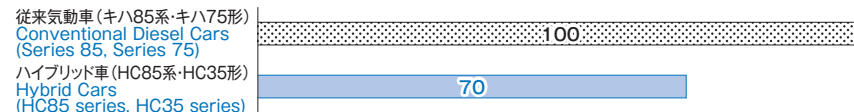


注 豊橋～大垣、名古屋～中津川を最高速度120km/hで走行(快速運用)した場合のシミュレーション

Note: Based on simulated test runs between Toyohashi and Ogaki, and Nagoya and Nakatsugawa at a maximum speed of 120km/h (rapid operation).

従来気動車(キハ85系・キハ75形)・ハイブリッド車(HC85系・HC35形)の軽油消費量の比較

Comparison of Diesel Fuel Consumption of Conventional Diesel Cars (Series 85, Series 75) and Hybrid Cars (HC85 series, HC35 series)



注 実際の走行線区を最高速度120km/hで走行した場合のシミュレーション

Note: Based on a simulated run on an actual line segment at the maximum speed of 120 km/h

事業活動における環境負荷 Environmental load in business activities

当社が2024年度の1年間の事業活動を行う上で使用した資源・エネルギー及び排出した廃棄物等のうち、主なものは以下の通りです。

The main resources and energy consumed as well as waste generated in JR Central's business activities during the year FY2024 are as shown below.

INPUT/OUTPUT ※括弧内は当社連結子会社 *Figures in parentheses are for consolidated subsidiaries.

INPUT	電力 Electricity	燃料(原油換算量) Fuel(Crude oil equivalent)	水 Water	A4コピー用紙 A4-sized copier paper
	29.1 億kWh (1.9 億kWh)	2.9 万kL (1.9 万kL)	329.9 万m ³ (207.9 万m ³)	0.6 億枚 (0.5 億枚)
	2.91 billion kWh (0.19 billion kWh)	29,000 kL (19,000 kL)	3,299 million m ³ (2,079 million m ³)	60 million sheets (50 million sheets)

※ うち運転用は、電力22.6億kWh(新幹線19.5億kWh、在来線3.1億kWh)、燃料1.4万kL(すべて在来線)

Note: For railway operation: electricity 2.26 billion kWh (Shinkansen: 1.95 billion kWh, conventional line: 0.31 billion kWh), fuel 14,000 kL (all for conventional lines)

OUTPUT	排出CO ₂ CO ₂ emissions	ごみ、廃棄物 Refuse and waste
	130.2 万t (12.1 万t)	55.6 万t
	1,302 million t (0.121 million t)	556,000 t

うちリサイクル
Recycled

44.7 万t
447,000 t

※ 電力及び燃料のCO₂排出係数は、エネルギーの使用の合理化及び非化石エネルギーへの転換等に関する法律の報告に基づく

※ リサイクル量は再掲。マニフェストまたは業者により再利用が確認できたものを計上

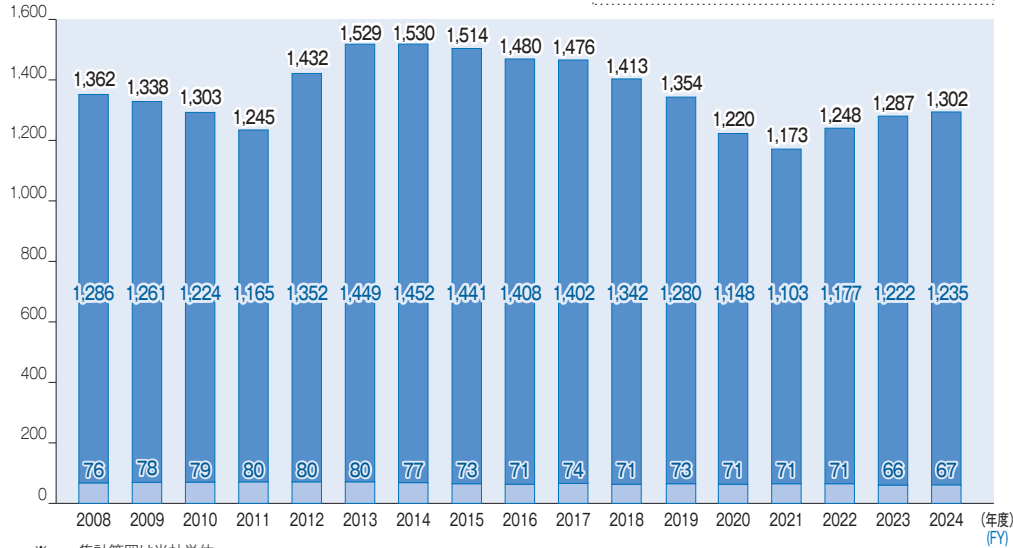
Notes: The electricity and fuel CO₂ emission coefficients are based on a report under the Act on Rationalizing Energy Use. The recycled amount is reprinted. Items confirmed to have been reused by manifest or vendor have been recorded.

※社内再利用含む
*Includes internal reuse

鉄道の環境優位性 Environmental Superiority of Railways

CO₂排出量 CO₂ Emissions

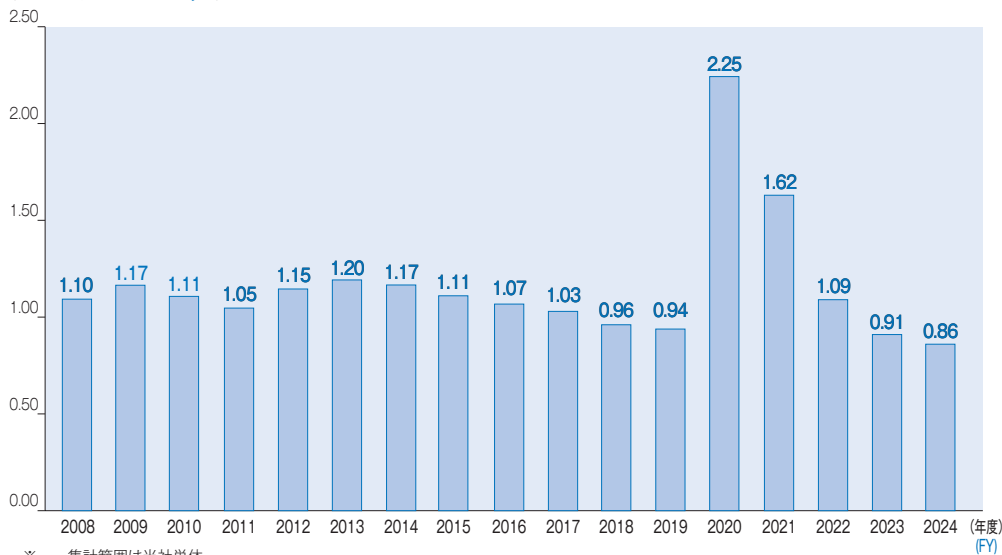
(千t thousand t)



※ 集計範囲は当社単体

Note: The scope of figures is limited to the Non-consolidated basis.

炭素強度 Carbon intensity

(tCO₂/百万円 t CO₂/million yen)

※ 集計範囲は当社単体

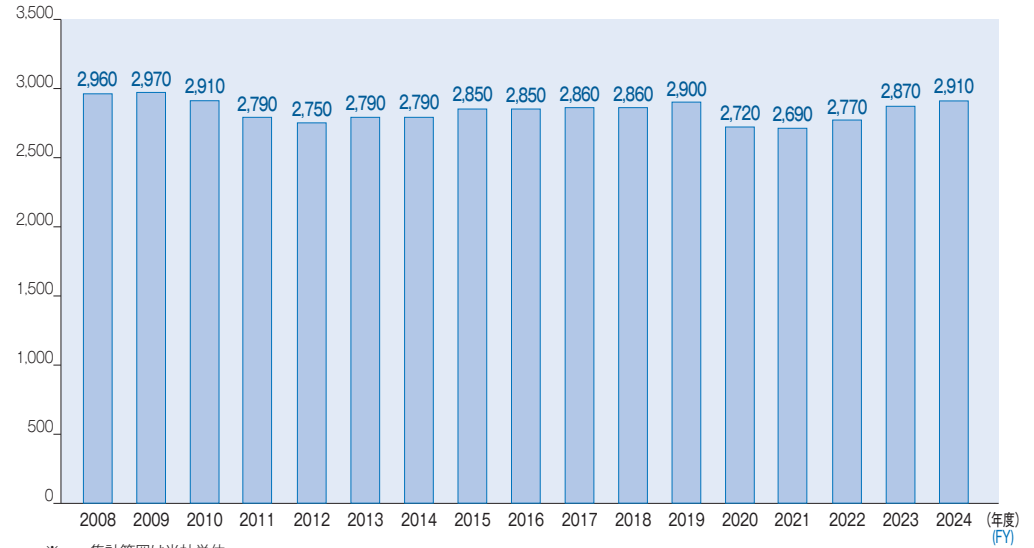
※ 2020年度は、新型コロナウイルス感染症の影響により営業収益(単体)が大きく減少したため、炭素強度が大きくなっている

Note: The scope of figures is limited to the Non-consolidated basis.

Note: Carbon intensity rose in FY2020 as operating revenues (non-consolidated) decreased significantly due to the impact of COVID-19.

電力消費量 Electricity consumption

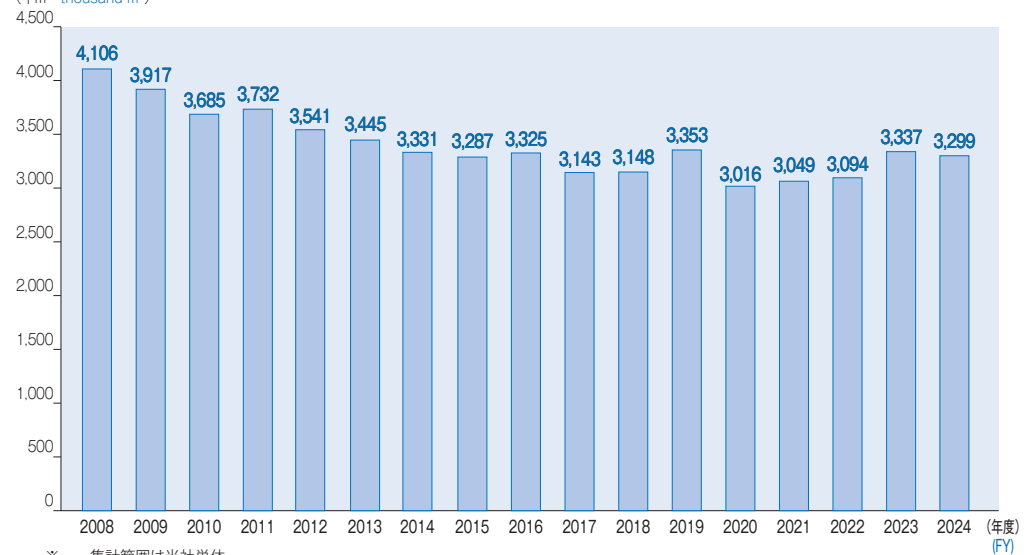
(百万kWh million kWh)



※ 集計範囲は当社単体

Note: The scope of figures is limited to the Non-consolidated basis.

水の使用量 Amount of water used

(千m³ thousand m³)

※ 集計範囲は当社単体

Note: The scope of figures is limited to the Non-consolidated basis.