



TRE HOLDINGS

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Supplemental materials for the second quarter of the Fiscal Year ending March 31, 2024

TRE HOLDINGS CORPORATION

(Code: 9247, Prime Market, Tokyo Stock Exchange)

Committed to the conservation of the global environment

November 14, 2023

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1H FY03/24 Results

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Summary of Consolidated Results: 1H FY03/24 Results

(millions of yen)

	FY03/23	FY03/24					
	1H Results	1H		1H Forecast		Full-year Forecast	
		Results	YoY		Progress		Progress
Net sales	44,210	44,490	100.6%	46,000	96.7%	95,200	46.7%
Operating profit	3,094	3,167	102.4%	3,300	96.0%	8,300	38.2%
Ordinary profit	3,137	3,166	100.9%	3,300	95.9%	8,300	38.1%
Profit attributable to owners of parent	2,250	2,007	89.2%	2,100	95.6%	5,400	37.2%

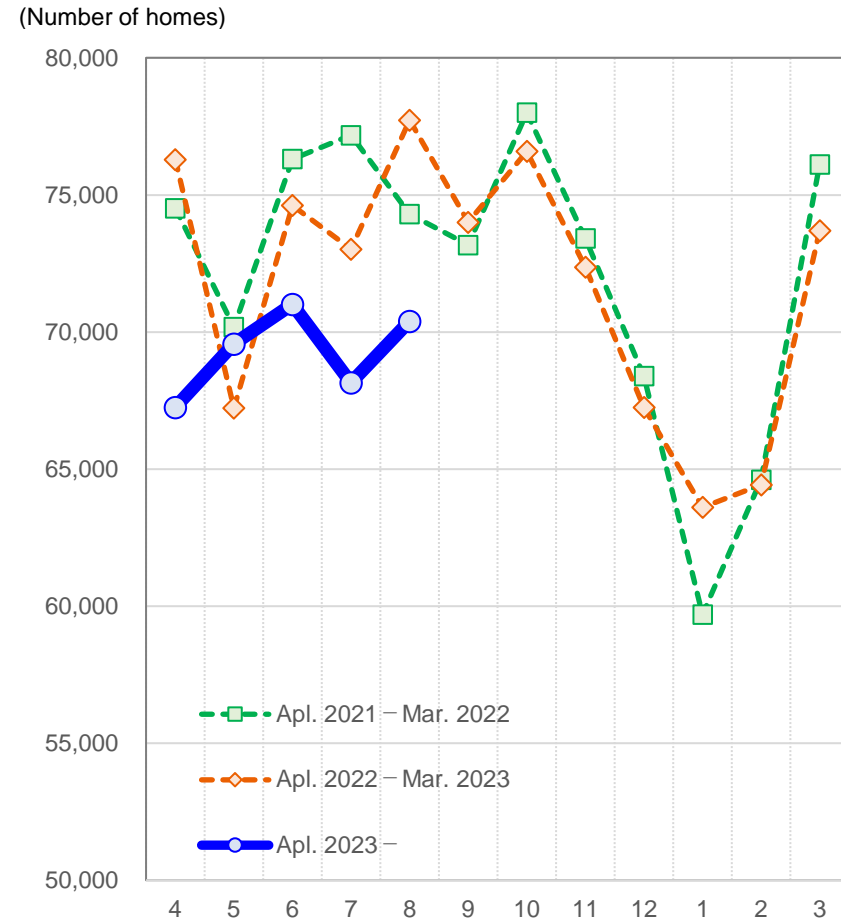
Higher sales and profit (operating profit) YoY amid ongoing trend of rising energy and other costs

- Amid ongoing increases in electricity, fuel, labor, and other costs, the Resource Recycling business also continues to be impacted by smaller handling volumes. In the Waste Treatment & Recycling business, accepted volumes increased and value-adding of delivered materials was implemented. In the Renewable Energy business, higher efficiency operation of biomass power generation plants and enhanced customer proposals in line with the centralization of electricity retailing contributed to consolidated operating profit. As a result, both sales and profit rose YoY.

1H FY03/24 Results

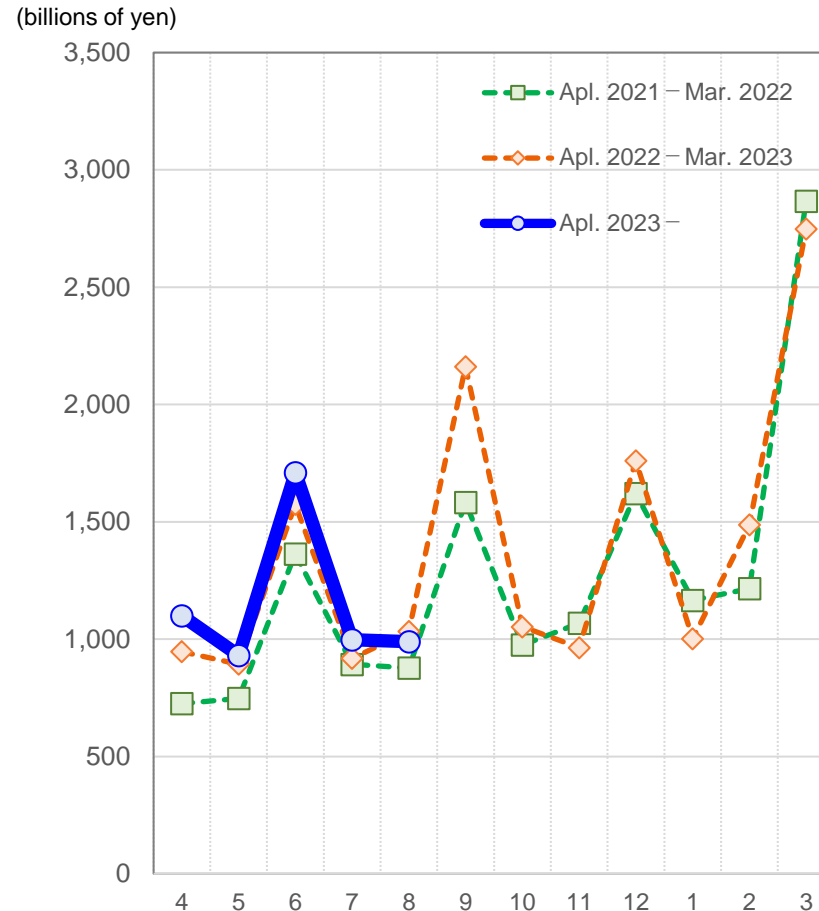


■ Number of new housing starts



- Although housing starts increased 3.5% YoY in May, they turned negative YoY again from June onward. Increased construction and other costs in line with rising material prices restrained housing starts, mainly for owner-occupied houses.

■ Construction orders (50 largest companies)



- Since the beginning of FY03/24, the trend toward higher orders YoY has continued. Despite a 4.3% decline in August, overall orders received thus far have increased 6.7% YoY.

■ Long-term trends in construction waste

- ◆ Construction waste accounts for approximately 20% of all industrial waste (approximately 400 million tons), both in terms of volume generated and final disposal.
- ◆ Appropriate sorting and treatment procedures are necessary for building materials containing harmful substances such as asbestos.
- ◆ The social infrastructure developed during Japan's period of rapid economic growth is aging, and maintenance and management costs are expected to increase 1.2-fold in 10 years.
- ◆ In recent years, earthquakes, typhoons, torrential rains, and other disasters have become more frequent and more severe, and a large amount of disaster-related waste is generated, which affects the construction recycling field.

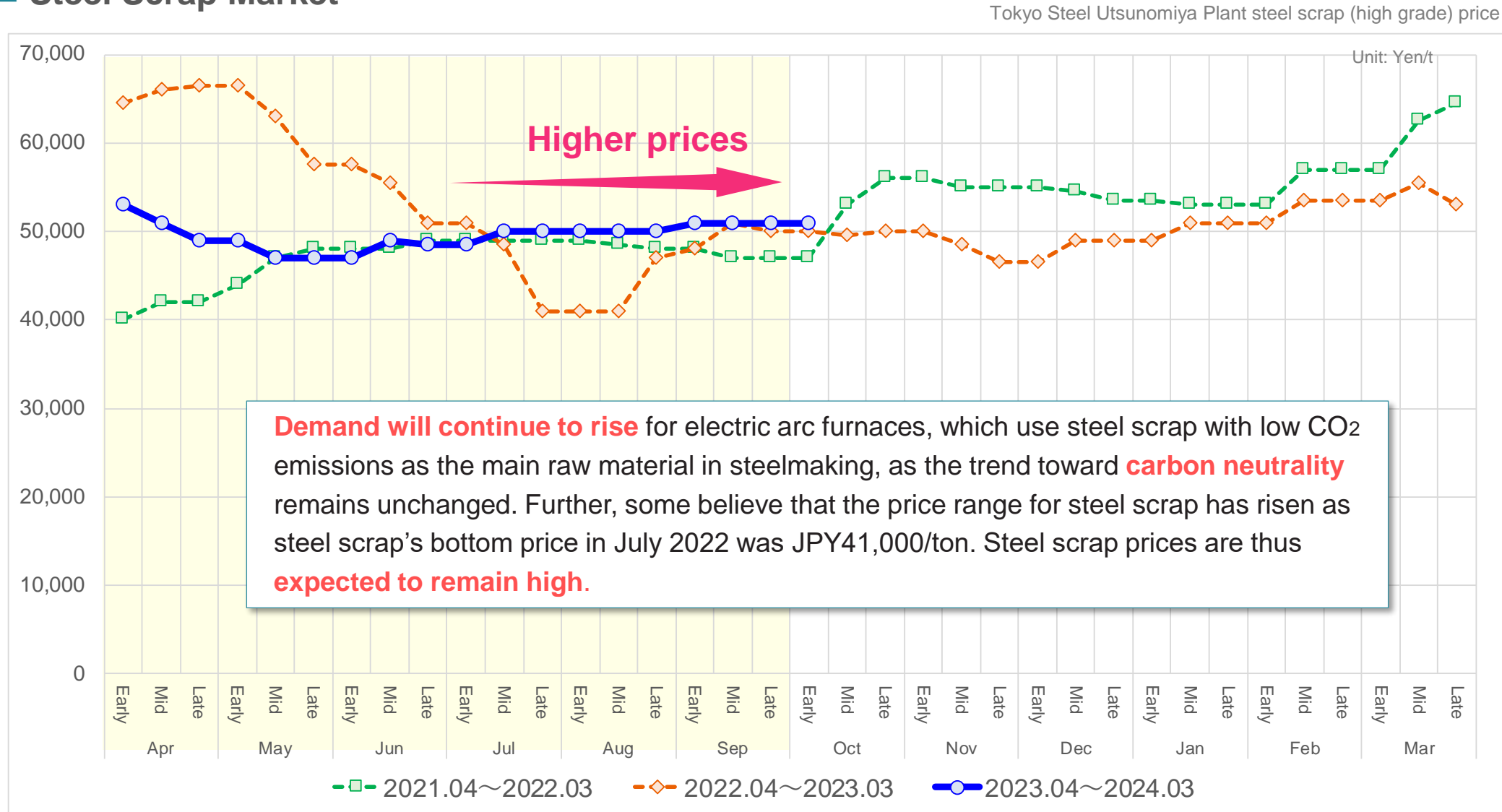
Waste Treatment & Recycling Business

We provide reliable and secure processing services and leverage our differentiation through proprietary biomass power plants and recycling plants to achieve

stable supplies and secure profits

(Graph data source: Ministry of Land, Infrastructure, Transport and Tourism)

■ Steel Scrap Market



◆ The steel scrap price, which was JPY53,000/ton at the beginning of the period, fell to JPY47,000/ton in mid-May due to a decline in crude steel production and overseas market conditions.

Subsequently, domestic electric arc furnace manufacturers raised prices in response to a slump in steel scrap generation and rising export prices due to the weak yen and other factors, which saw the price recover to JPY50,000/ton. Since then, supply and demand remain low but balanced both domestically and internationally, and there have been no major price movements, with steel scrap reaching JPY51,000/ton at end-Q2 FY03/24.

Market prices remain at a high levels.

Resource Recycling Business

Taking advantage of our presence in the Kanto region, which has many sales channels, we are able to **minimize the risk of a market downturn** by reducing our inventory holding period.

Net Sales, Operating Profit, and Operating Profit Margin by Segment TRE HOLDINGS

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(millions of yen)

	Net sales			Operating profit			Operating profit margin	
	FY2023	FY2024		FY2023	FY2024		FY2023	FY2024
	1H	1H	YoY	1H	1H	YoY	1H	1H
Consolidated	44,210	44,490	100.6%	3,094	3,167	102.4%	7.0%	7.1%
Waste treatment and recycling	12,138	13,018	107.2%	1,884	1,801	95.6%	15.5%	13.8%
Collection & Transportation / Waste treatment (Note 1)	8,158	8,833	108.3%	1,228	1,193	97.1%	15.1%	13.5%
Recycling (Note 1)	2,696	3,147	116.7%	451	584	129.5%	16.7%	18.6%
Landfill (final disposal) (Note 1)	1,411	1,198	84.9%	174	24	13.8%	12.3%	2.0%
Resource recycling (Note 2)	22,872	21,113	92.3%	1,634	1,403	85.9%	7.1%	6.6%
Renewable energy (Note 3)	6,455	6,954	107.7%	-11	340	-	-	4.9%
Other businesses (Note 4)	3,204	3,579	111.7%	21	36	171.4%	0.7%	1.0%
Adjustments (Note 5)	-461	-176	-	-435	-414	-	-	-

Note 1: No strict segment adjustments have been made for sub-segments in the Waste Treatment & Recycling business.

Note 2: The Resource Recycling business includes JPY90 million in goodwill amortization related to business integration.

Note 3: The Renewable Energy business includes JPY189 million of amortization of goodwill associated with the acquisition of Green Power Ichihara Co., Ltd.

Note 4: Other businesses consist of the environmental consulting business and the environmental engineering business included in the reportable segments of TAKEEI CORPORATION

Note 5: Adjustments to segment income and loss of -JPY414 million include -JPY430 million in companywide expenses and JPY16 million in intersegment eliminations that are not allocated to any reportable segment. Companywide expenses are general and administrative expenses that do not fall under any reportable segment.

Volumes by Major Segment

	FY03/23 1H	FY03/24	
		1H	YoY
Waste treatment and recycling			
Accepted volume [①] (a+b+c) (t)	376,310	388,555	103.3%
Collection & Transportation / Waste treatment [a]	149,335	161,444	108.1%
Recycling [b]	163,780	174,416	106.5%
Landfill (final disposal) [c]	63,196	52,695	83.4%
Net sales [②] (millions of yen)	12,138	13,018	107.2%
Reference unit price (②÷①) (Unit: Yen/t)	32,255	33,504	103.9%
Resource recycling			
Handling quantity [①] (a+b) (t)	295,651	283,799	96.0%
Spread business (Metal and automobile recycling) [a]	243,196	233,135	95.9%
Non-spread business (Waste treatment, home appliances recycling) [b]	52,454	50,665	96.6%
Net sales [②] (millions of yen)	22,872	21,113	92.3%
Reference unit price (②÷①) (Unit: Yen/t)	77,362	74,394	96.2%

Waste Treatment & Recycling

- **Collection and transportation, waste treatment**

In addition to firm orders for large projects, the reclassification of COVID-19 to Class 5 stimulated activity in various construction projects, leading to an increase in handling volumes. Acceptance unit price showed a stable trend.

- **Recycling**

Volumes handled by TRE GLASS, which became a consolidated subsidiary in Q2 FY03/23, increased in Q1. Debris handling volumes declined due to lower demand for crushed stone in the Tokyo metropolitan area. Waste gypsum board handling volumes remained firm.

- **Landfill**

Decreased due to the impact of torrential rains, a decrease in large spot and demolition projects and slow waste generation.

Resource Recycling

- **Spread business**

In addition to a decline in the number of end-of-life vehicles, the volume of building demolition scrap and shredder materials other than end-of-life vehicles generated in the market was also sluggish. However, the number of end-of-life vehicles steadily recovered nationwide in August and September, turning positive YoY.

- **Non-spread business**

Waning pandemic-driven demand and higher prices caused a slowdown in home appliance replacement demand, resulting in fewer used home appliances.

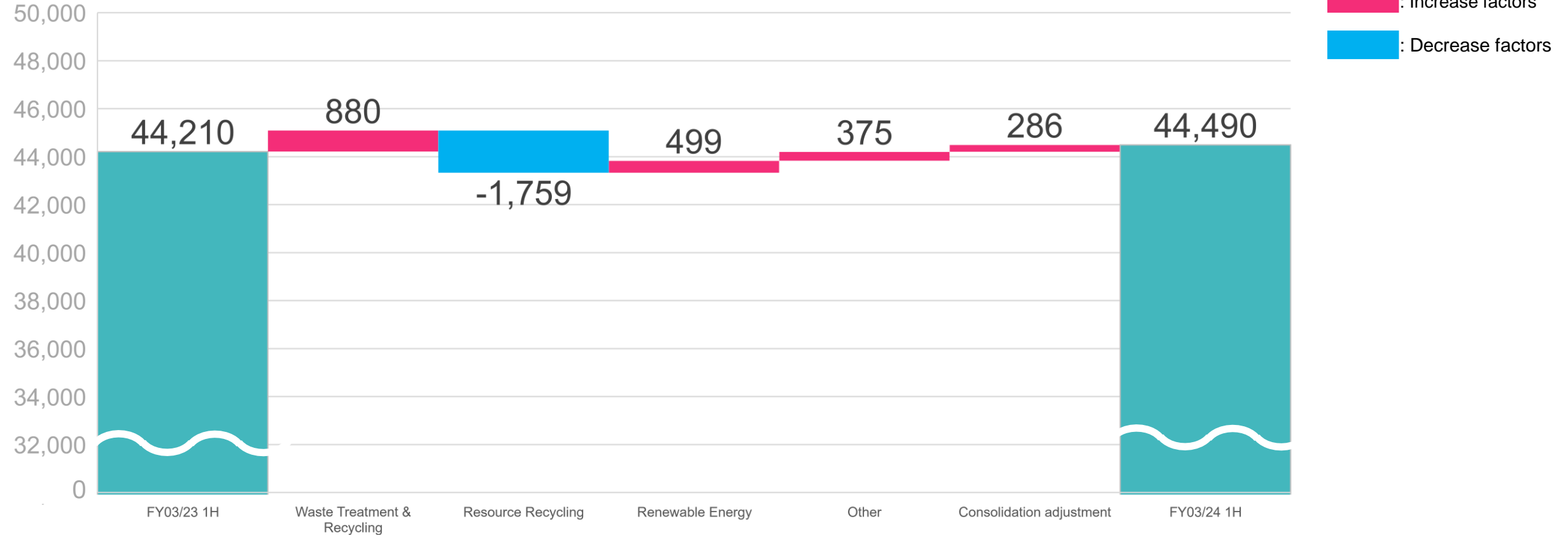
Volumes by Major Segment

	FY03/23 (Actual)					FY03/24 (Actual)				
	Q1	Q2	Q3	Q4	Full year	Q1	Q2			
							YoY		YoY	
Waste Treatment & Recycling										
Accepted volume [①] (a+b+c) (t)	183,441	192,869	225,736	208,640	810,686	196,698	107.2%	191,857	99.5%	
Collection and transportation, waste treatment [a]	74,785	74,550	87,441	84,004	320,780	79,537	106.4%	81,907	109.9%	
Recycling [b]	74,506	89,274	101,249	90,244	355,273	89,505	120.1%	84,910	95.1%	
Landfill (final disposal) [c]	34,150	29,045	37,045	34,392	134,633	27,656	81.0%	25,040	86.2%	
Net sales [②] (millions of yen)	5,893	6,245	7,020	6,503	25,661	6,689	113.5%	6,329	101.3%	
Reference unit price (②÷①) (Yen/t)	32,125	32,379	31,098	31,169	31,653	34,006	105.9%	32,988	101.9%	
Resource Recycling										
Handling quantity [①] (a+b) (t)	149,403	146,248	149,079	141,673	586,402	142,066	95.1%	141,734	96.9%	
Spread business (Metal and automobile recycling) [a]	124,324	118,872	125,169	118,844	487,209	117,840	94.8%	115,295	97.0%	
Non-spread business (Waste treatment, home appliances recycling) [b]	25,079	27,376	23,910	22,829	99,193	24,226	96.6%	26,438	96.6%	
Net sales [②] (millions of yen)	13,009	9,862	10,839	11,154	44,866	10,721	82.4%	10,392	105.4%	
Reference unit price (②÷①) (Yen/t)	87,073	67,434	72,706	78,731	76,511	75,465	86.7%	73,321	108.7%	

Analysis of Change in Net Sales by Segment (vs. 1H FY03/23)

Net sales

Unit: Millions of yen



Waste Treatment & Recycling business

- Orders for large-scale projects in the Tokyo metropolitan area remained strong, resulting in an increase in transportation and disposal volumes. Ongoing Tohoku reconstruction projects, with the handling of disaster-related waste, contributed to sales growth.
- TRE GLASS CORPORATION earnings are not included in Q1 FY03/23 (became a consolidated subsidiary in July 2022).

Resource Recycling business

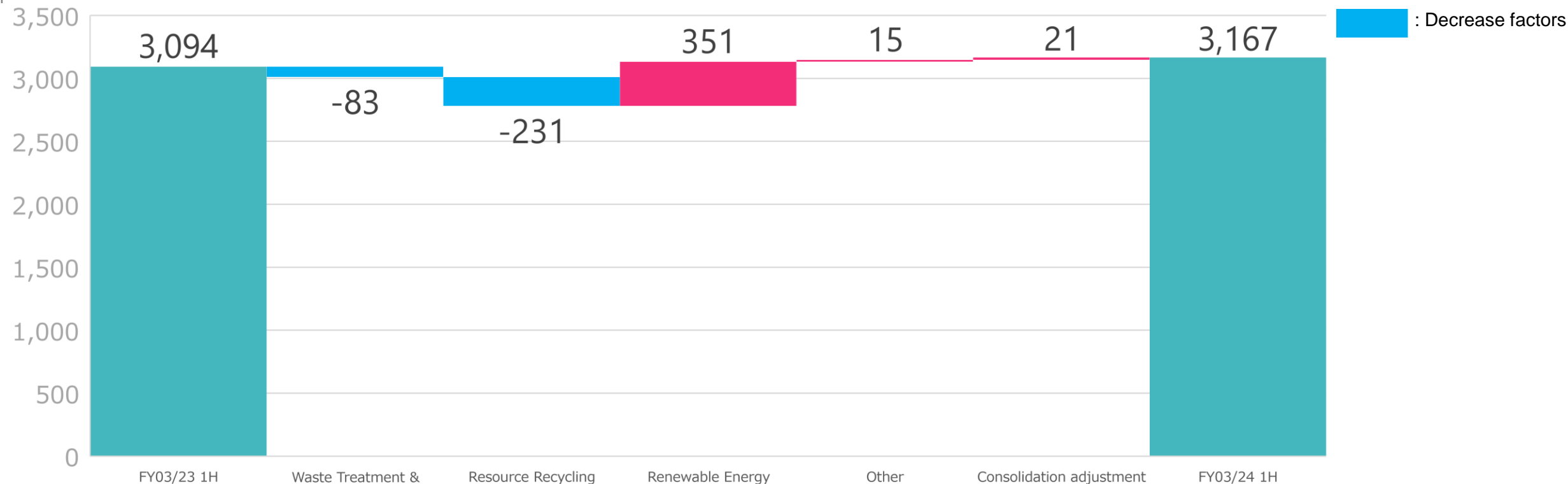
- Sales of ferrous and nonferrous metals after processing and sorting decreased due to a decline in handling volumes, in addition to low steel scrap prices, which averaged about JPY50,000/ton in 1H FY03/24 (compared with an average of about JPY54,000/ton in 1H FY03/23).

Renewable Energy business

- In electricity retailing, efforts were focused on sales of electricity with non-fossil certificates, and sales were boosted by the extremely high and prolonged summer temperatures, in addition to the development of wholesale channels.
- Despite the suspension of operations at Green Power Ichihara Co., Ltd., to conduct repairs in Q1, high-load operations resumed in Q2, driving sales higher.

Operating profit

Unit: Millions of yen



Waste Treatment & Recycling business

- Profit decreased significantly due to unseasonable weather and fewer large-scale projects among other factors in locations other than the Tokyo metropolitan and Tohoku areas.
- Soaring energy costs and higher labor and other expenses have had an impact on volume growth and value-added waste.
- TRE GLASS CORPORATION earnings are not included in Q1 FY03/23 (became a consolidated subsidiary in July 2022).

Resource Recycling business

- Steel scrap prices remained low in Q1 (resulting in lower gains on sale of ferrous and non-ferrous metals).
- Declining handling volumes resulted in lower gains on sale of ferrous and non-ferrous metals after processing and sorting.
- Electricity, labor, and other expenses remained high.

Renewable Energy business

- Green Power Ichihara repairs were completed and high-load operations have commenced, which along with improved operational efficiency and stable operation at each of the other power plants, resulted in significantly higher sales.
- Regarding electricity retailing, in addition to lower procurement costs, sales remained strong, boosting profits.

(Millions of yen)

	1H FY03/23	1H FY03/24
Cash flows from operating activities	3,383	5,600
Cash flows from investing activities	-4,167	-10,445
Cash flows from financing activities	1,075	2,541
Net increase (decrease) in cash and cash equivalents	291	-2,304
Cash and cash equivalents at beginning of period	24,014	23,678
Cash and cash equivalents at end of period	24,305	21,373

Cash flows

Net cash flow from operating activities amounted to JPY5,600 million mainly due to quarterly profit before income taxes and minority interests of JPY3,209 million and depreciation of JPY2,771 million.

Net cash flow from investing activities amounted to (JPY10,445 million) primely due to a JPY5,000 million investment in the limited partnership for investment, and a JPY5,574 million payment for construction progress at the Monzen controlled final landfill site and for upgrades and enhancements of existing facilities.

Net cash flow from financing activities amounted to JPY2,541 million driven by JPY5,200 million proceeds from issuance of Sustainability-

Breakdown of major items

	1H FY03/23	1H FY03/24
Cash flows from operating activities		
Profit before income taxes	3,356	3,209
Depreciation	2,719	2,771
Amortization of goodwill	284	285
Decrease (increase) in trade receivables and contract	1,188	330
Income taxes paid	-2,126	-770
Cash flows from investing activities		
Expenditures due to investment in investment limited partnership	-	-5,000
Purchase of non-current assets	-2,942	-5,574
Purchase of shares of subsidiaries resulting in change	-1,412	-
Cash flows from financing activities		
Increase (decrease) in short-term borrowings	2,841	-40
Proceeds from issuance of bonds	-	5,168
Proceeds from long-term borrowings	2,600	1,853
Repayments of long-term borrowings	-2,571	-3,003
Dividends paid	-1,292	-1,044

linked bond, despite JPY3,003 million repayment of long-term borrowings and JPY1,044 million dividend payment.

Due to the above, cash and cash equivalents as of the end of Q2 FY03/24, totaled JPY21,373 million, down JPY2,304 million from the end of FY03/23.

(millions of yen)

	FY03/23	FY03/24	
	1H	1H	Full-year Forecast
Capital expenditures (Note 1)	2,942	5,395	14,300
Depreciation	2,719	2,771	6,349
Amortization of goodwill (Consolidated)	284	285	572

Note 1: Capital expenditures include property, plant and equipment, intangible assets, and construction in progress.

Note 2: The investment amount of JPY25.0 billion for the three-year period stated in the Medium-term Business Plan, excluding prepaid expenses of JPY8.0 billion, includes expenses for replacement of equipment and vehicles.

Progress of Medium-term Business Plan for Capital Expenditure

In FY03/24, we launched construction of a new controlled final waste disposal facility at Monzen Clean Park Co., Ltd., building reconstruction work at the REVER CORPORATION's Fujisawa Plant, and construction of a planned advanced sorting center in Mibu, Tochigi.

From FY03/25, as part of the next Medium-term Business Plan currently being formulated, we plan to make extensive capital expenditure in large-scale intermediate treatment plants, waste power generation plants, waste plastic recycling plants, and advanced sorting plants for metal resources to realize the "TRE Integrated Environmental Business (provisional name)" planned in Ichihara, Chiba.

■ Main capital expenditure for FY03/24 (actual and planned)

		1H Actual	Full-year forecast
Monzen Clean Park Co., Ltd.	Disposal site development work, etc.	JPY2.01 billion	JPY6.35 billion
REVER CORPORATION	Northern Kanto New Plant (Mibu)	JPY10 million	JPY1.09 billion
REVER CORPORATION	Fujisawa Plant rebuilding	JPY420 million	JPY660 million
Fuji Car Manufacturing Co., Ltd.	Renewal of equipment and software	JPY100 million	JPY640 million
Shinshu Takeei Co., Ltd.	Relocation of head office, renewed capital expenditures	JPY100 million	JPY500 million
Hokuriku Environmental Services Co., Ltd.	Relocation of head office, expansion of disposal site, etc.	JPY320 million	JPY500 million
Green Power Ichihara Co., Ltd.	Replacement of equipment and machinery, etc.	JPY410 million	JPY460 million

- The construction of Monzen Clean Park's controlled final landfill facility has completed and pre-operational government inspections are undergoing.
- Currently, the REVER CORPORATION's Mibu Plant (provisional name) is undergoing final inspections and applications for various permits in preparation for the start of construction. With the launch of operations at this plant, we expect to increase earnings by collecting dust (residue) from shredder factories located in the northern Kanto region for thorough recycling.
- Shinshu Takeei Co., Ltd., head office building reconstruction and surrounding area improvements are underway.
- Hokuriku Environmental Services Co., Ltd., will relocate its head office and distribution center, and we will improve transportation efficiency to Hokuriku Environmental Services and Monzen Clean Park Co., Ltd., and strengthen cooperation between the two companies.

Medium-Term Business Plan



Progress of Medium-term Business Plan

(millions of yen)

	First year of Medium-term plan (FY03/22)			Second year of Medium-term plan (FY03/23)			Third year of Medium-term plan (FY03/24)		
	Full-year Results (Note 1) (Note 2)	Full-year Plan	Progress	Full-year Results (Note 2)	Full-year Plan	Progress	1H Results (Note 2)	Full-year Plan	Progress
Net sales	90,584	84,000	107.8%	90,712	94,200	96.3%	44,490	95,200	46.7%
Operating profit	10,326	7,700	134.1%	7,509	9,300	80.7%	3,167	8,300	38.2%
Operating profit margin	11.4%	9.2%	124.4%	8.3%	9.9%	83.9%	7.1%	8.7%	-
Profit attributable to owners of parent	7,248	5,050	143.5%	5,197	5,900	88.1%	2,007	5,400	37.2%
Earnings per share	(Note 3) JPY141.1	(Note 3) JPY98.3	143.5%	JPY101.2	JPY114.8	88.2%	-	JPY105.1	-

Note 1. Results for TAKEEI CORPORATION and REVER CORPORATION (formerly REVER HOLDINGS CORPORATION), for the period from April to March of the following year, have been combined to make YoY comparisons.

Note 2: Operating profit figures include the effect of goodwill amortization related to business integration (amounting to JPY90 million for FY03/22, JPY178 million for FY03/23, and JPY90 million for 1H FY03/24).

Note 3: For the first year of the Medium-term Business Plan, earnings per share (EPS) is calculated based on 51,362,030 shares, which is the number of issued shares at the end of FY03/22 minus the number of treasury shares at the end of the same year.

- 1st year: The mainstay Waste Treatment & Recycling and Resource Recycling businesses benefited significantly from a favorable business environment (large-scale projects, favorable unit prices and volumes).
- 2nd year: Unable to fully absorb the effects of a rapidly worsening business environment (fewer end-of-life vehicles, rising electricity and fuel costs, and adverse weather conditions).
- **3rd year (1H):** In the Resource Recycling business, although a decline in the volume of vehicles handled is putting significant pressure on earnings, a recovery is expected in 2H amid other signs of improvement including a YoY increase in the number of end-of-life vehicles generated in August and September and the full-fledged operation of new post-shear dust and resin sorting lines installed in FY03/23. We are working to accumulate operating profit both in the Waste Treatment & Recycling business and the Resource Recycling business, by continuing value-adding of delivered materials from each recycling plant in the former, and by improving operational efficiency at each biomass power plant and strengthening the sale of electricity with non-fossil certificates in the latter.

Performance Trends and Plan

		First year of Medium-term plan FY03/22			Second year of Medium-term plan FY03/23			Third year of Medium-term plan FY03/24							
		1H	2H	Full-year Results	1H	2H	Full-year Results	Q1	Q2	1H Results		Full-year Plan			
		Apr. 2021 - Sep. 2021	Oct. 2021 - Mar. 2022	Apr. 2021 - Mar. 2022	Apr. 2022 - Sep. 2022	Oct. 2022 - Mar. 2023	Apr. 2022 - Mar. 2023	Apr. 2023 - Jun. 2023	Jul. 2023 - Sep. 2023	Apr. 2023 - Sep. 2023	YoY	Apr. 2023 - Mar. 2024	YoY	Progress	
Consolidated	Net sales	43,427	47,156	90,584	44,210	46,501	90,712	22,060	22,430	44,490	+0.6%	95,200	+1.1%	46.7%	
	Operating profit	4,842	5,483	10,326	3,094	4,415	7,509	1,274	1,892	3,167	+2.4%	8,300	-10.8%	38.2%	
	Operating profit margin	11.2%	11.6%	11.4%	7.0%	9.5%	8.3%	5.8%	8.4%	7.1%	-	8.7%	-	-	
Waste treatment and recycling	Net sales	12,224	12,922	25,146	12,138	13,523	25,662	6,689	6,329	13,018	+7.2%	27,757	+7.5%	46.9%	
	Operating profit	2,234	2,879	5,113	1,884	2,325	4,210	1,010	791	1,801	-4.4%	4,346	-9.2%	41.4%	
	Operating profit margin	18.3%	22.3%	20.3%	15.5%	17.2%	16.4%	15.1%	12.5%	13.8%	-	15.7%	-	-	
	Collection & Transportation / Waste treatment (Note 2)	Net sales	8,370	9,028	17,399	8,158	9,078	17,236	4,468	4,364	8,833	+8.3%	17,792	-0.1%	49.6%
		Operating profit	1,141	1,939	3,080	1,228	1,676	2,904	625	567	1,193	-2.9%	2,716	-18.8%	43.9%
		Operating profit margin	13.6%	21.5%	17.7%	15.1%	18.5%	16.9%	14.0%	13.0%	13.5%	-	15.3%	-	-
	Recycling (Note 2)	Net sales	2,398	2,631	5,029	2,696	2,998	5,694	1,621	1,526	3,147	+16.7%	6,348	+26.6%	49.6%
		Operating profit	715	564	1,279	451	412	864	334	250	584	+29.5%	1,014	+11.4%	57.6%
		Operating profit margin	29.8%	21.4%	25.4%	16.7%	13.8%	15.2%	20.6%	16.4%	18.6%	-	16.0%	-	-
	Landfill (final disposal) (Note 2)	Net sales	1,535	1,591	3,127	1,411	1,493	2,905	650	548	1,198	-15.1%	3,616	+20.3%	33.1%
		Operating profit	365	346	711	174	204	378	41	-16	24	-86.2%	615	+15.4%	3.9%
		Operating profit margin	23.8%	21.8%	22.8%	12.4%	13.7%	13.0%	6.3%	-	2.1%	-	17.0%	-	-
Resource recycling (Note 3)	Net sales	22,350	24,067	46,418	22,872	21,994	44,866	10,721	10,392	21,113	-7.7%	45,550	-3.3%	46.4%	
	Operating profit	2,667	2,787	5,454	1,634	1,505	3,139	680	723	1,403	-14.1%	3,796	-13.0%	37.0%	
	Operating profit margin	11.9%	11.6%	11.8%	7.1%	6.8%	7.0%	6.3%	7.0%	6.6%	-	8.3%	-	-	
Renewable energy (Note 3)	Net sales	6,065	6,551	12,617	6,455	7,338	13,794	3,101	3,853	6,954	+7.7%	13,891	-1.4%	50.1%	
	Operating profit	-145	-160	-305	-11	699	688	-215	555	340	-	771	+98.7%	44.1%	
	Operating profit margin	-	-	-	-	9.5%	5.0%	-	14.4%	4.9%	-	5.6%	-	-	
Other	Net sales	3,174	3,928	7,102	3,204	4,169	7,374	1,649	1,929	3,579	+11.7%	8,710	+10.4%	41.1%	
	Operating profit	82	358	441	21	303	325	2	34	36	+71.4%	483	+15.0%	7.5%	
	Operating profit margin	2.6%	9.1%	6.2%	0.7%	7.3%	4.4%	0.1%	1.8%	1.0%	-	5.5%	-	-	
Adjustments	Net sales	-387	-312	-700	-461	-524	-986	-102	-74	-176	-	-708	-	-	
	Operating profit	4	-381	-376	-435	-417	-852	-202	-212	-414	-	-1,096	-	-	

Note 1: Results for TAKEEI CORPORATION and REVER CORPORATION, for the period from April to March of the following year, have been combined.

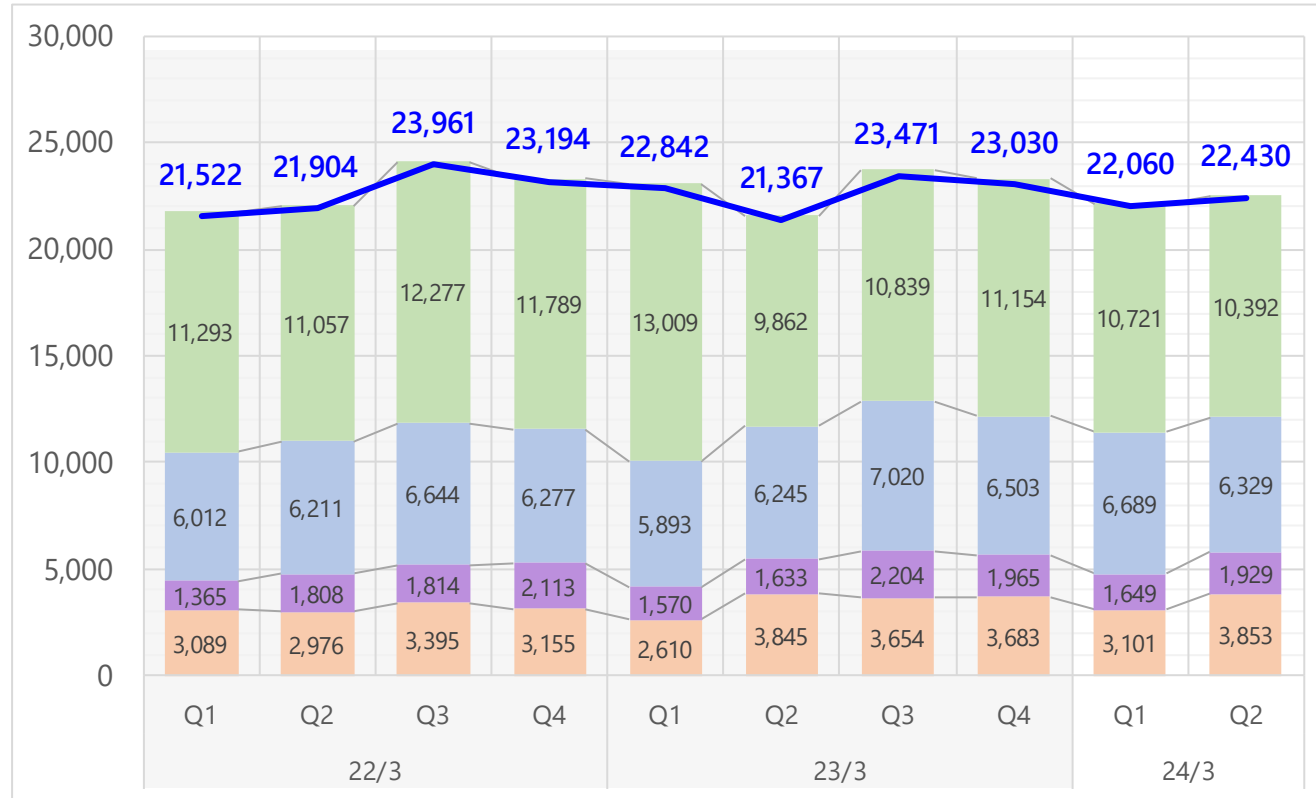
Note 2: No strict segment adjustments have been made.

Note 3: Reflects impact of goodwill in the Resource Recycling and Renewable Energy businesses.

Net Sales and Operating Profit Trends

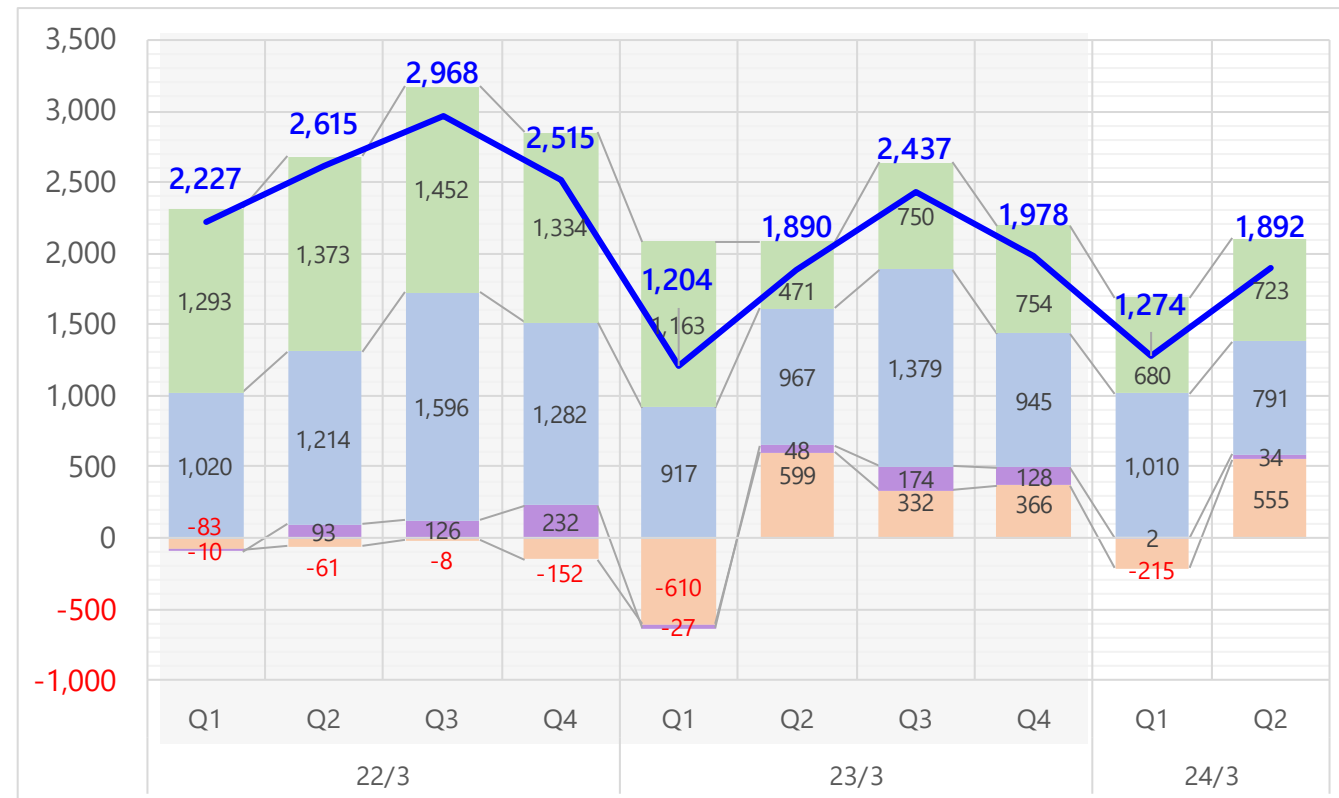
Net sales

(millions of yen)



Operating profit

(millions of yen)



Waste Treatment and Recycling business

- Despite a significant YoY increase in volumes handled, sales declined in Q1 compared to Q2 due to lower volumes. Profit is also trending down due to the impact of lower handling volumes and rising electricity and other expenses.
- We aim to secure profits through the continued value-adding of delivered materials and cost reductions.

Resource Recycling business

- Although steel scrap market prices remain at projected levels, a decline in the volume of scrap handled put pressure on profits. End-of-life vehicle handling volumes are on a recovery track, resulting in higher profit in Q2 compared to Q1. Going forward, we expect higher earnings from a recovery in handling volumes and thorough recycling.

Renewable Energy business

- Q2 sales were the highest ever for a quarter due to continued high-load operations at Green Power Ichihara Co., Ltd., the stable operation of other power plants, and strong retail sales.
- Q2 profit also reached the second highest level since the all-time high recorded in Q2 FY03/23.

TOPICS



As of October 2023



Total landfill capacity is equivalent to approx. 2.8x that of Tokyo Dome (capacity of Tokyo Dome = 1.24mn m³)

	Phase 1	Phase 2	Phase 3	Total
Landfill area	5.16ha	8.46ha	5.75ha	17.26ha
Landfill capacity	836,000 m ³	1,731,000 m ³	864,000 m ³	3,431,000 m³
Landfill period	11 years, 7 months	24 years, 6 months	11 years, 9 months	47 years, 10 months

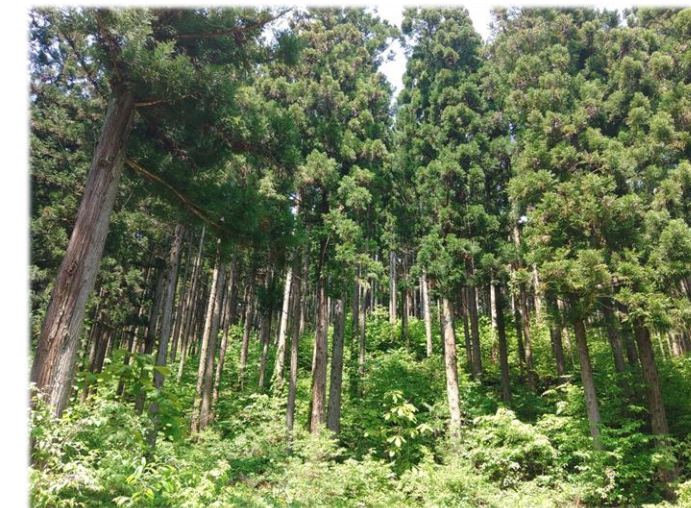
(Note) The sum of the landfill areas for phase 1 through phase 3 do not match as some areas overlap.

- We have completed construction of the controlled final landfill site, which constitutes the cornerstone of the TRE Holdings Group's growth strategy. The site will serve as a base that supports the Group's growth strategy over a long period (landfill period of 47 years and 10 months), while ensuring symbiosis with the local community and harmony with nature.
- The TRE Group aims to contribute to circular economy of Japan and is promoting technological development and capital expenditure to raise the recycling efficiency as high as possible. Nevertheless, some wastes difficult to recycle remains and disposes in the landfill despite these efforts.
- The Monzen controlled final landfill site will provide final disposal of waste that is difficult to recycle domestically, after appropriate safety measures are taken through latest water treatment facilities. For final effluent, we take thorough quality control measures such as processing it through public sewage treatment plants. These steps will enable us to accept waste, which is generated across a wide area, for a long term and in a stable manner.
- We recognize the extreme significance of owning a controlled final landfill site that will become the receptacle for disasters wastes that unexpectedly results from typhoons, torrential downpours, and other natural disasters, which are occurring with increasing frequency in recent years.

Visit the Monzen Clean Park website ▽
<https://www.takeei.co.jp/mzcp/index.html>

Forestry challenges and development of new fuel material

- In September 2023, TAKEEI Forestry Co., Ltd., acquired approximately 270 hectares of company-owned forest in the Daiyama district of Hanamaki City. TAKEEI Forestry is steadily expanding company-owned forests, with this acquisition bringing the total area to 550 hectares. Going forward, the company plans to continue acquiring land, mainly in the area surrounding Hanamaki.
- In October 2023, about 30,000 larch tree saplings were planted in a 15 hectare forest owned by Tsugaru Biomass Power Generation Co., Ltd.
- We are currently challenging a test of Momigalite, dent corn, and other materials as new fuels.
- We plan to establish a preparatory company (joint venture) that will utilize Paulownia Tomentosa trees, which grow faster than ordinary Paulownia, and are said to have a higher capacity for absorbing CO2.



Appropriately thinned, 60-year old cedar tree grove

Regular Maintenance Plan for Each Power Plant

	Years in operation	Main maintenance & inspection contents	Q1	Q2	Q3	Q4
Tsugaru Biomass Power Generation Co., Ltd.	8	Boilers, turbines	○		◎*3	
Hanamaki Biomass Power Generation Co., Ltd.	7	Boilers, fuel supply equipment, etc.	○		○	
Daisen Biomass Power Generation Co. Ltd.	5	Boilers, turbines, etc.	○		○	
Takeei Green Recycling Co., Ltd.	4	Boilers, turbines, etc.		◎*2		○
Green Power Ichihara Co., Ltd.	17	Boilers, turbines, etc.	◎*1		○	
Tamura Biomass Power Generation Co., Ltd.	3	Boilers, fuel supply equipment	○	○		

◎Statutory inspections (once every two years for boilers, once every four years for turbines) ○Regular maintenance

Note 1: In Q1, although Green Power Ichihara replaced equipment deemed necessary during inspections in FY03/23 and conducted regular maintenance, they maintained high-load operations after restart.

Note 2: In July 2023, Takeei Green Recycling conducted statutory inspections and implemented permanent countermeasure work for stable operations.

Note 3: Tsugaru Biomass Power Generation Co., Ltd., which celebrated its eighth year of power generation since December 2015, conducted a statutory inspection in October.

Comprehensive upgrade of large shredder equipment

Scheduled to commence operations in FY03/26

The REVER CORPORATION Kawashima Plant will replace its pre-shredder (coarse shredder) and large shredder (crusher) with the latest equipment.

- Group company Fuji Car Manufacturing Co., Ltd., is in charge of shredder production, customizing equipment in light of business site characteristics and know-how.
- We own six large shredders in the Kanto area. Neighboring sites will handle crushing and processing, maintaining handling volumes during the upgrade construction.
- REVER CORPORATION Kawashima plant to increase handling volumes through specialization in the field of metal shredding, including end-of-life vehicles.
- Dust (residual material), which increases as the volume handled rises, will be thoroughly recycled at the Mibu Plant (tentative name) planned for operation in Mibu, Tochigi. The TRE Group contributes to a circular economy through shredding.

Increased handling volume

Approx. 36,000 tons to approx. 60,000 tons annually

Approx. 1.7 times

Aiming to create business schemes realizing a circular economy (CE)

We aim to collaborate with Mizuho Leasing Company, Limited, to establish CE business schemes combining TRE Group mobility, including collection and transportation, advanced sorting and recycling technologies, and energy conversion know-how, with Mizuho Leasing's knowledge, customer base, information network, and expertise in various solutions.

At present, REVER CORPORATION accepts leased-up equipment, then shreds and recycles it thoroughly by sorting it into resin and other materials for material recycling.

Further, we are considering

- Expanding collaborations with other companies to realize CE, and
- Verifying the visualization of information pertaining to leasing and IT companies,

among other efforts aimed at exploring the creation of business schemes.



APPENDIX



Challenges in the macro environment



Social needs



Our response

Two companies sharing the same passion for the global environment decided to come together to jointly invest capital and boost efficiency.

On October 1, 2021, TAKEEI CORPORATION and REVER HOLDINGS CORPORATION established a joint holding company with the aim of leveraging all economic resources to create synergies.



TREホールディングス株式会社

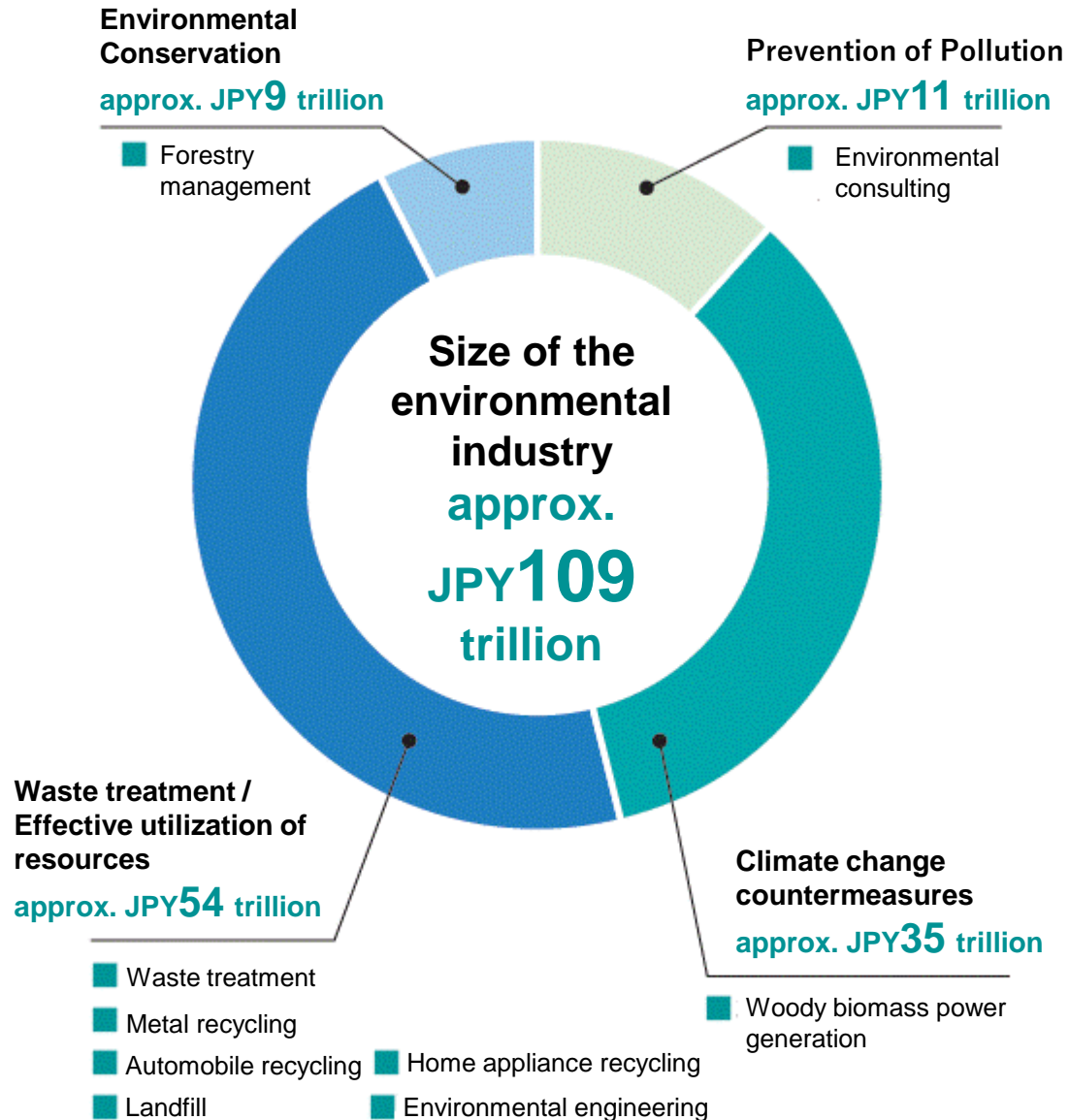
Try
↓
Technology
Recycling
Renewable Energy
↓
Earth Ecology

Try
Developing new technologies
Enhancing the Recycling business
Promoting the Renewable Energy business
Preserving the Global Environment

Corporate Philosophy	We are committed to the conservation of the global environment.
Establishment	October 1, 2021
Headquarters	Chiyoda-ku, Tokyo
Representative Directors	Naoto Matsuoka, Chairman and CEO Mitsuo Abe, President and COO
Capital stock	JPY10.0 billion
Number of employees	2,202 employees (on a consolidated basis)
Group Businesses	Waste treatment and recycling, resource recycling, renewable energy, environmental engineering, environmental consulting
Subsidiaries, etc.	32 subsidiaries, 6 equity-method affiliates
Number of locations	64 locations in Tokyo metropolitan area as well as Tohoku, Hokuriku, Koshin and Kansai regions, 1 overseas location in Thailand
Key customers	Major construction companies, home builders, major steel companies, trading companies, etc.

As of End-September 2023

Market size of Japan's environmental industry
approx. JPY109 trillion



Source: "Report on the Market Size and Employment of the Environmental Industry" by the Environmental Industry Market Size Study Group, released June 2023 (2021 edition)

Macro trends in Japan's environmental industry

(June 2023 Ministry of the Environment statistics)

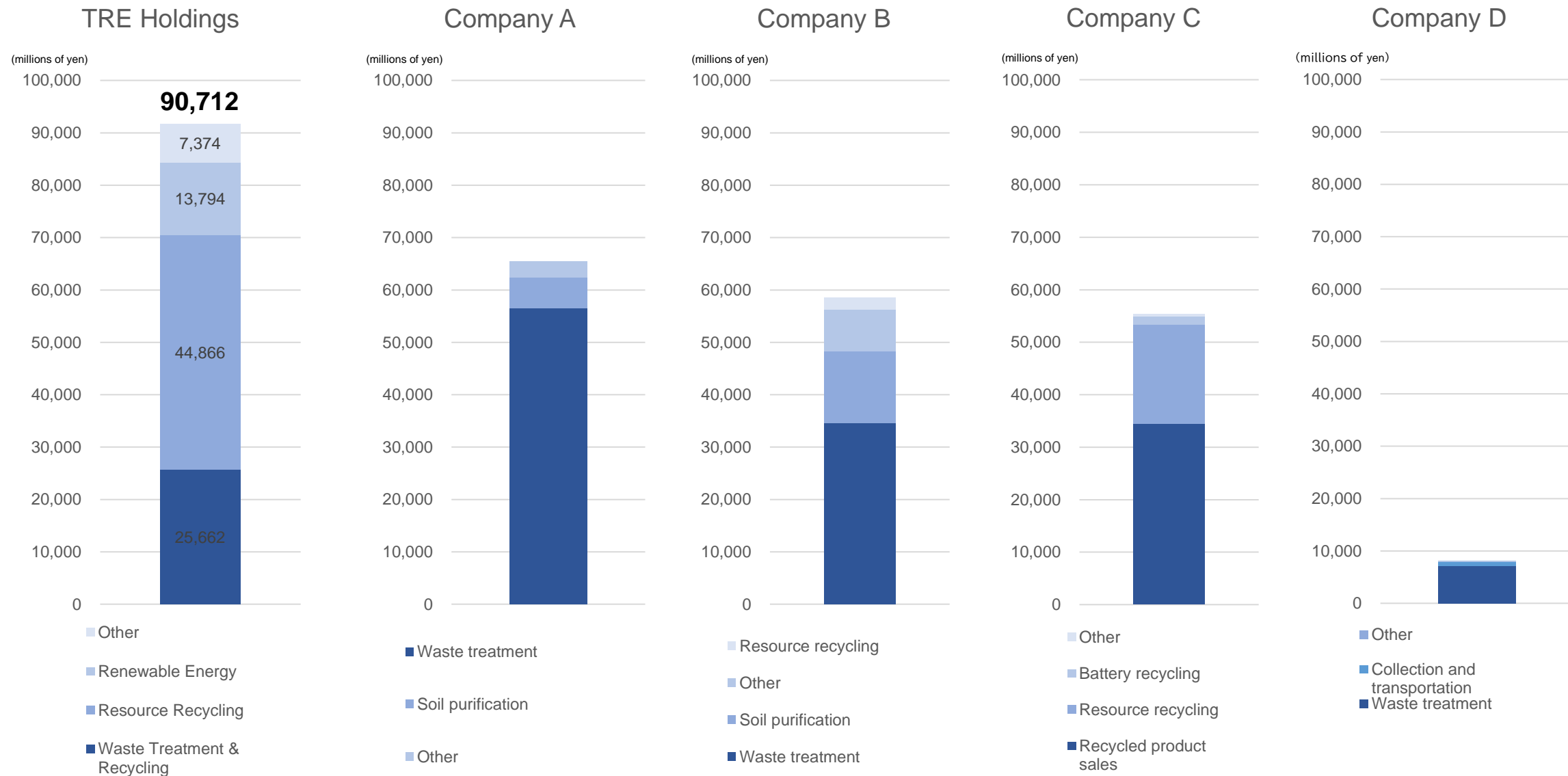
- The market shows high growth potential in the long term, despite the negative impact of the COVID-19 pandemic on each indicator YoY.
- The market size of Japan's environmental industry is estimated at JPY109 trillion, about 1.7 times that of 2000.
- The estimated scale of employment in Japan's environmental industry is about 2.8 million, about 1.4 times that of 2000.
- The value of exports from the environmental industry is estimated at JPY17 trillion, about 9.7 times that of 2000.
- The value of imports of the environmental industry is estimated at JPY5 trillion, about 9.1 times that of 2000.
- Added value in the environmental industry is estimated at JPY46 trillion, about 1.5 times that of 2000.
- The economic ripple effect of the environmental industry is estimated at JPY205 trillion, about 1.8 times that of 2000.

The Ministry of the Environment's circular economy process chart

(From the Ministry of the Environment's Central Environmental Council, August 25, 2022)

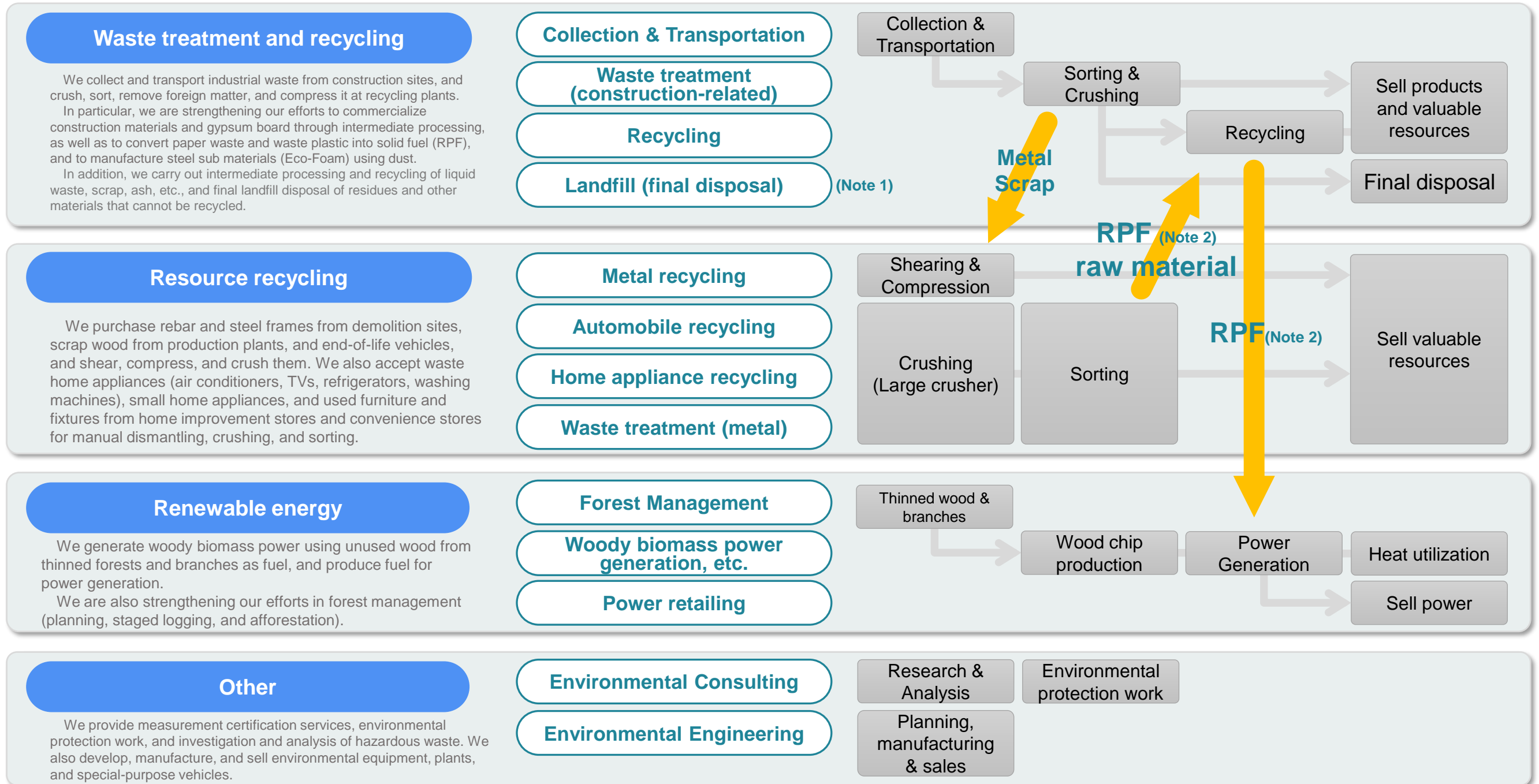
- **The goal is to increase the market size of businesses related to the circular economy from the current JPY50 trillion to more than JPY80 trillion by 2030.**

Comparison with peers in Japan



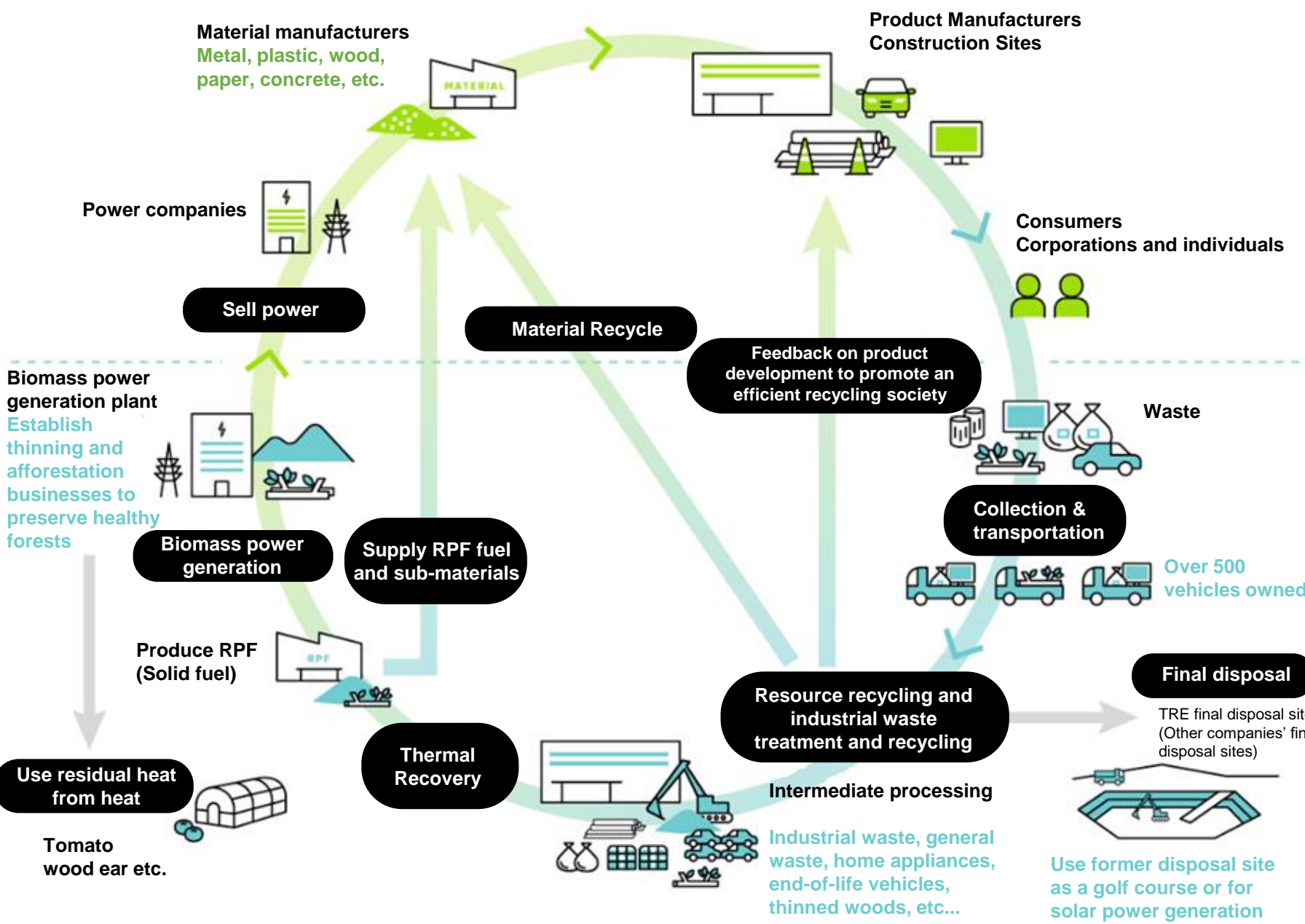
Towards a leading company as a comprehensive environmental company.

Note: According to TRE research.



Note 1: Use former disposal site as a golf course or for solar power generation

Note 2: RPF is a solid fuel made mainly from recycled paper and waste plastics. It is high in calories and emits less CO₂ than fossil fuels.



Waste treatment and recycling business

Resource recycling business

Renewable Energy business

We operate mainly in the Kanto area, which has a large amount of waste and strong demand for recycled products and renewable energy.

With one of the largest processing capacities, numerous locations, and a large fleet of vehicles, we are able to meet the social needs of a circular economy.

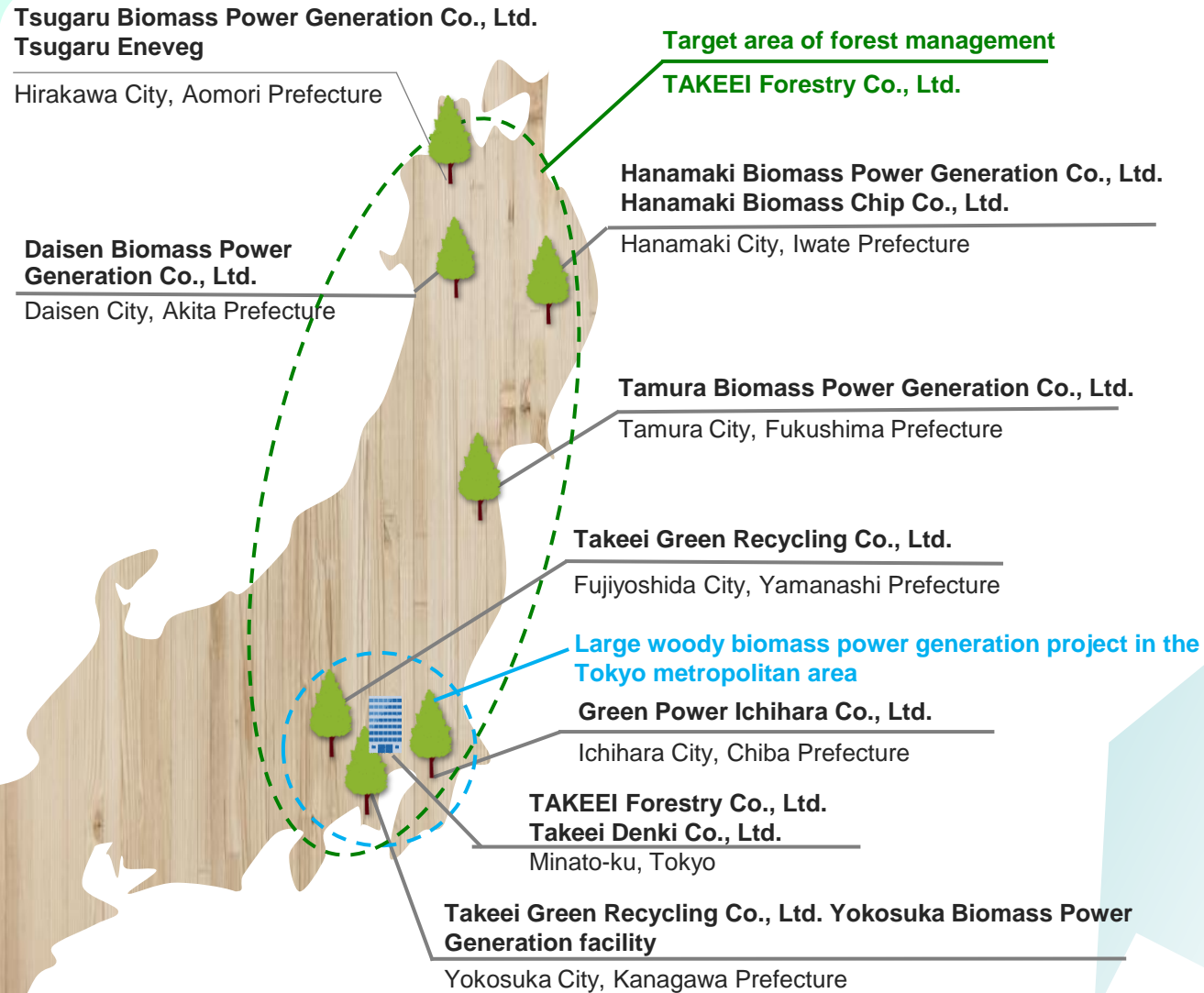
Group volume Appx. **2 million tons** per year

Intermediate processing and recycling facilities, etc. Appx. **60** locations

vehicles owned Appx. **500** vehicles

Number of large crushers **6** crushers in Kanto region

Note: Large crushers refer to crushers with a main body horsepower of at least 1,000 horsepower.



Environmental Engineering & Environmental Consulting businesses

As for other business segments, we operate an environmental engineering business that plans, manufactures, and sells environmental equipment, and an environmental consulting business that conducts measurement certification operations, environmental protection work and investigates, and analyzes hazardous waste.

Renewable Energy business

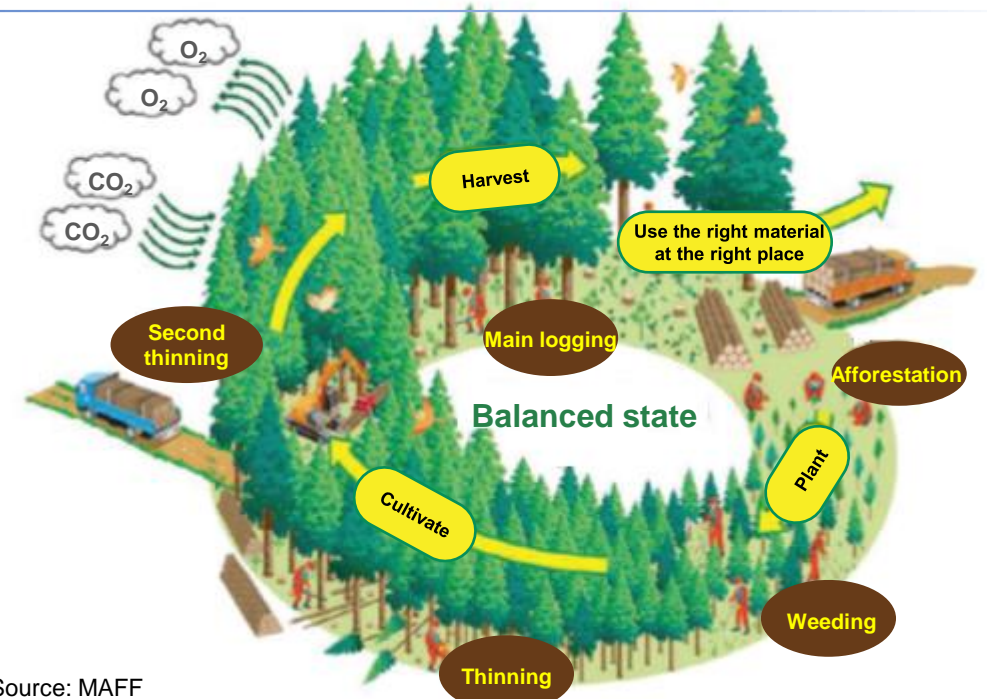
RPF: A solid fuel made mainly from waste paper and plastics. It is high in calories and emits less CO2 than fossil fuels.

We operate **four** woody biomass power plants centered on eastern Japan, mainly in the Tohoku region using unused forest resources such as thinned wood and logged wood as fuel, and **two** plants in the Kanto region using scrap wood and some RPF as fuel.

In addition, we are strengthening our efforts in forest management (planning, staged logging, and afforestation) and promoting the expansion of our renewable energy business where resource circulation is viable.

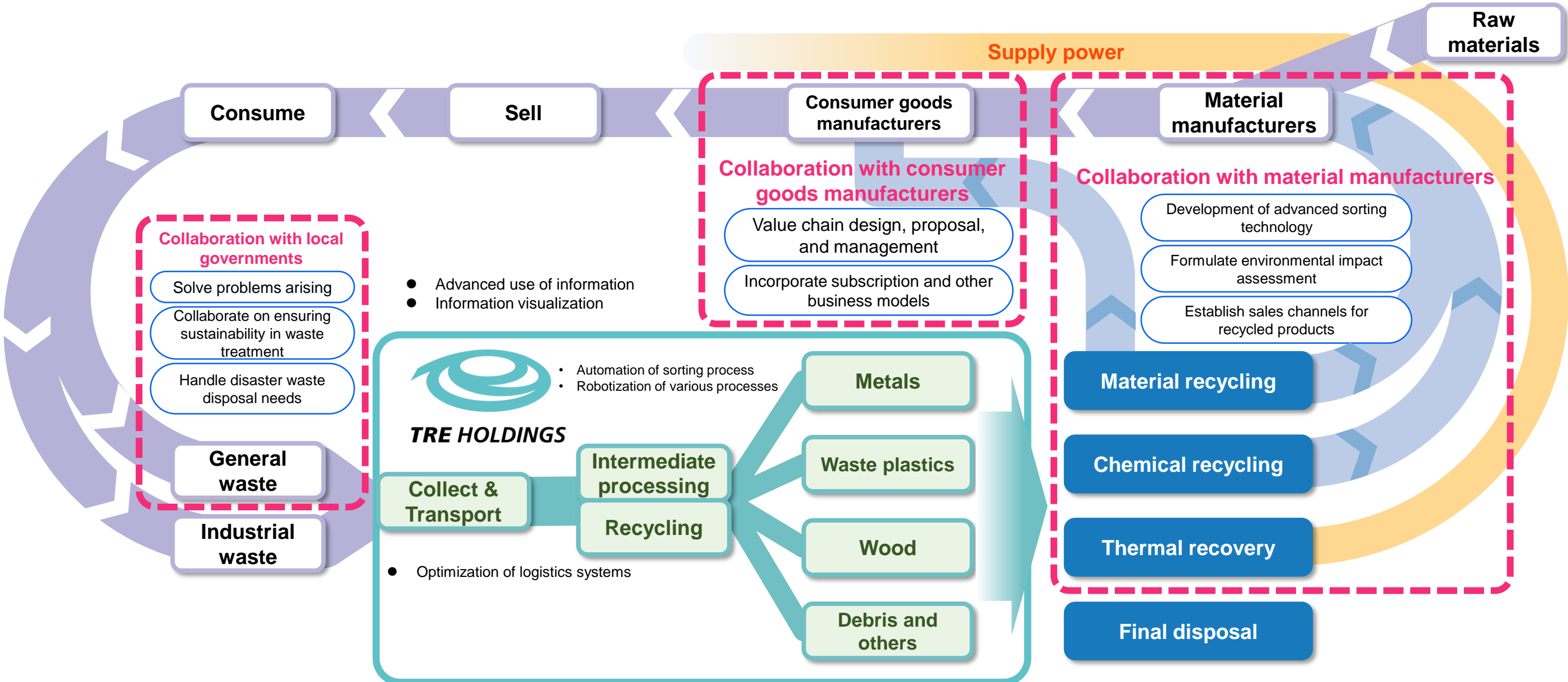
Annual woody biomass volume: 600,000 tons RPF: 50,000 tons

Annual power generated: Appx. 569,859 MWh



Source: MAFF

Circular Economy Initiatives



Recycling unused resources

◆ RPF



We filter mixed waste for paper, textile and plastics. These are compressed and molded into a solid fuel material - 'RPF'. We plan to increase RPF production by applying this method to shredder dust among others.



Effective use of solid fuel for power generation (RPF)

RPF is a recycled material used to fuel biomass power generators and thermal recycling facilities. Among TRE Group companies, Green Power Ichihara Co., Ltd. and TAKEEI Green Recycling Co., Ltd.'s Yokosuka Plant use RPF to fuel their power generators (they are positioned as the final intergroup users).

The RPF production is expected to serve as a stable waste receiver for the new Group as well as a facilitator to recycle unused resources.

◆ Eco-form®



Dust residue contained in waste is collected with a dust collection system. The collected dust is then compressed and molded into a solid material by a compressor. We are leveraging the production of 'Eco-form ®' (a subsidiary material applied in the iron making process) to speed up process in 'resource recycling'.



An additive agent (forming suppressant) in the iron making 'converter'.

Eco-form is an additive agent used in the 'converter' that smelts iron ore. The agent prevents the slag from forming, helping produce high-quality iron. (TAKEEI Tokyo Plant already expanded its Eco-form production line in September 2020).

As each iron mill employs different quality standards, we are working on production of various added-value models to enhance the appeal of demand for recycled materials.

◆ Eco-flake



Waste carpet tiles are technically difficult to recycle, therefore many of them are discarded in landfill. In light of this, we have built a mill exclusively designed to recycle waste carpet tiles where the top textile layer is ripped off the bottom PVC layer, facilitating the recycling of this waste resource.



Recycling the PVC (polyvinyl chloride) layer to produce a reclaimed material. Eco-flake:



Eco-flake

Waste carpet tiles are recycled into reclaimed materials, capable of meeting the high quality requirements of carpet manufacturers.

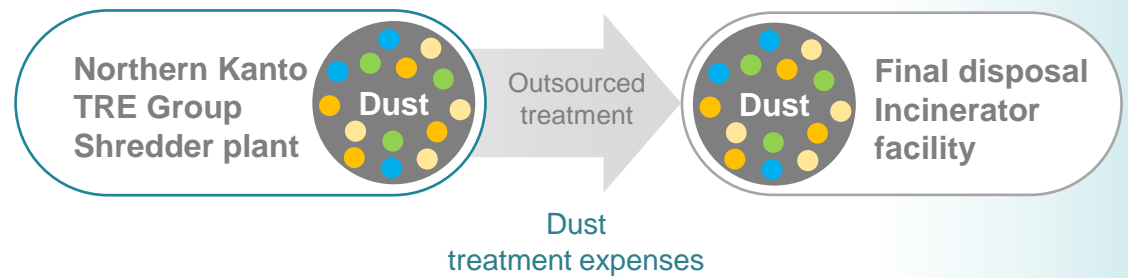
We pursue further technological development and higher quality to drive forward resources recycling i.e. recycled plastics.

Advanced Sorting Center: REVER CORPORATION Mibu Plant (provisional name) ~ Operational in August 2025

A new plant was built to sort valuable materials (metals and plastics) from dust (residue) after shredding by large shredders.

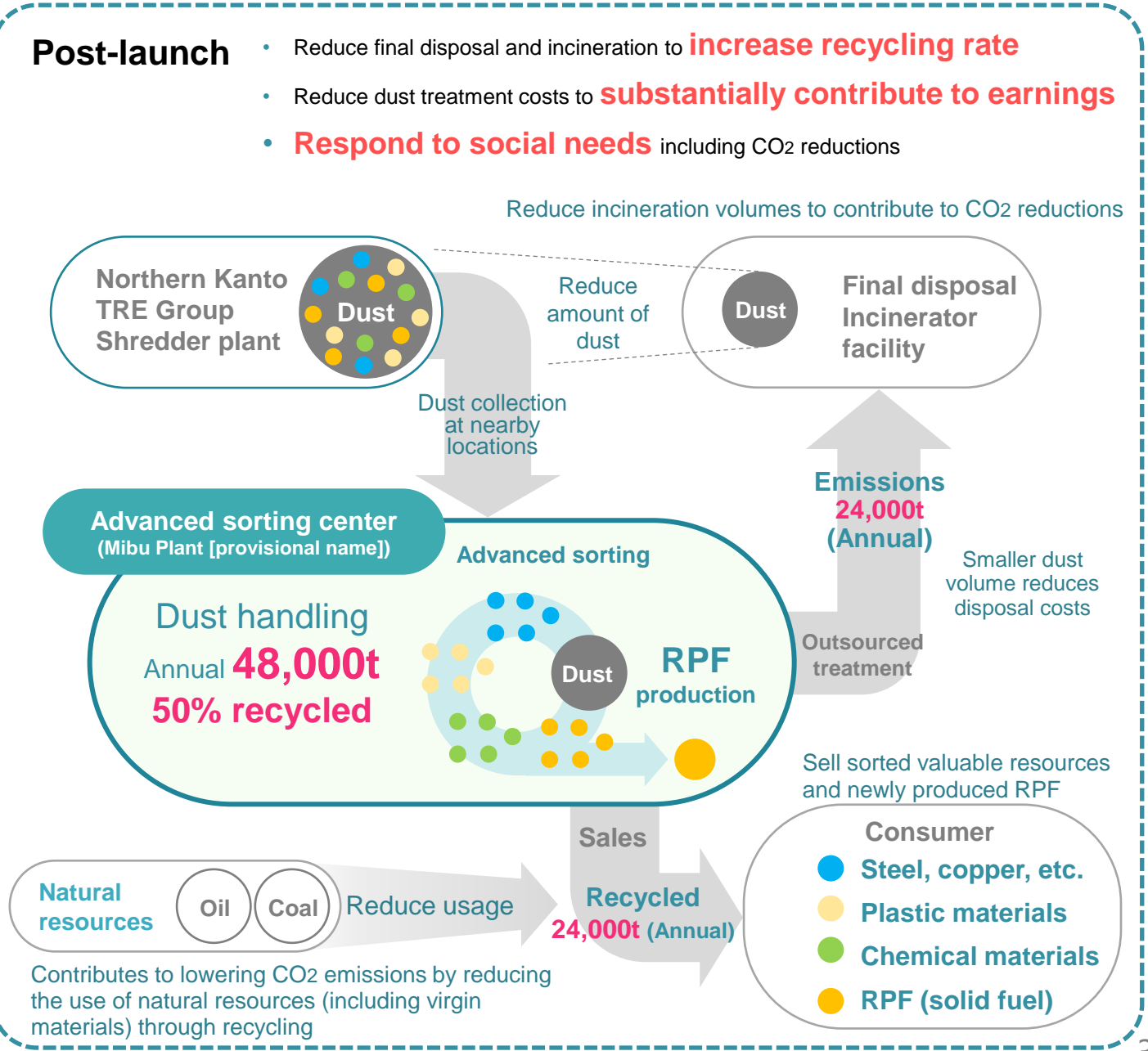
Dust treatment issues

- Unsorted in **landfills and incinerators**
- Outsourcing involves **high treatment costs**



Societal needs

- Realization of carbon neutrality via **CO2 reductions**
- Accelerated efforts to **utilize recycled materials** in plastic products to realize circular economy
- **Increased demand for RPF (solid fuel)** as an alternative to fossil fuels with a low environmental impact



Business Alliance with Sumitomo Chemical Co., Ltd. (April 2023)

- In the EU, there is a growing movement to make the **inclusion of recycled materials a mandatory requirement** for major plastic products.
- There is a **sense of crisis among domestic automakers and related parts suppliers** with global operations.
- The trend toward the **commercialization of products using recycled materials** is also gaining momentum in Japan, with the **potential for systematic implementation**.

Projected demand for recycled plastics used in automobile production

390,000 tons annually

(Source: TRE HOLDINGS)

Automotive material manufacturing technologies



End-of-life vehicle disassembling and sorting know-how



Aiming to establish a “Car to Car” scheme for recycling waste plastic recovered from end-of-life vehicles into automobile parts.

Business Alliance with Hitachi Zosen Corporation (May 2023)

- Many regions are required to **revise their waste treatment systems, including facility upgrades** (wide-area expansion, consolidation, etc.).
- Urgently need to curb emissions of plastic product waste, promote recycling, and reduce CO2 emissions from incineration.**
- Recovery and recycling opportunities exist because the **recovery of valuable resources from incinerated ash** has yet to advance.

Incineration facilities in East Japan Demand for equipment renewal (within 15 years)

Appx. 150 facilities

(Source: TRE HOLDINGS)

Works with local governments to design, construct, and operate waste power generation facilities



Recycling technologies facilitating thorough resource recovery Integrated treatment systems for collection and transportation to final disposal



Municipal waste sorting opportunities

2.96 million tons annually

(Source: Plastic Waste Management Institute)

Aiming to promote public-private partnership projects, effectively deploy high-efficiency waste power generation and recycling facilities across regions, and jointly commercialize waste plastic and incinerator ash recycling.

1. Basic Approach

The TRE Group aims to further strengthen its functions and expand its scale as a comprehensive environmental company playing a central role in the creation of an efficient recycling and a carbon-neutral society. In other words, the industry will be transformed from one that accepts, treats, and disposes of waste, to an **industry that generates resources from waste.**

2. Basic Strategy

Pursuing growth for recycling businesses

Expand TRE Group functions and facility capabilities and promote the realization of cross-industrial collaborations.

Example: Respond to substantial future needs for the recycling of glass contained in solar panels and automobile windshields, mainly through strategic subsidiary TRE GLASS CORPORATION.

Promoting eco-friendly energy businesses

- ① **Promote biomass power generation business and thermal recovery of waste.**
- ② **Promote acquisition of forests and utilization of forest resources through TAKEEI Forestry Co., Ltd.**
- ③ **Expand sales of renewable energy, including electricity with non-fossil certificates.**

Development of new technologies

Budget 1% of sales for R&D investments, etc. (including industry-academia-government collaborations for social implementation as an environmental project).

Example: In anticipation of the societal shift to EVs, we are promoting the development of advanced technologies for the disassembling and sorting of batteries removed from collected automobiles and the recycling of rare metals.

Sustainability management

Set KPIs quantified as non-financial targets for the five priority material issues.

Example: Within non-financial KPIs, we implement raising funds through sustainability-linked bonds connected to predefined achievement targets for TRE Group recycling efficiency and CO2 emissions reduction.

3. Management Indicators

Revised ROE target

Current Medium-term Business Plan target is 8% or more, which will be raised to 10% or more in the future.

Shareholder returns

Current Medium-term Business Plan targets a dividend payout ratio of 30% or more, and in the future, a total return ratio of 35–40% (share buybacks may be considered, depending on share price levels).

- The information contained in this document, with the exception of those relating to past and present facts, are based on judgments made by the Company based on certain assumptions and currently available information. These judgments and assumptions contain uncertainties and may be affected by future changes in the economic environment and other factors. As a result, future results of the Company and the Group may differ from projections.
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TRE HOLDINGS

未来へ、捨てない創造力を。