

Financial Briefing Materials for FY2019

May 26, 2020

Takuma Co., Ltd.



技術を大切に
人を大切に
地球を大切に

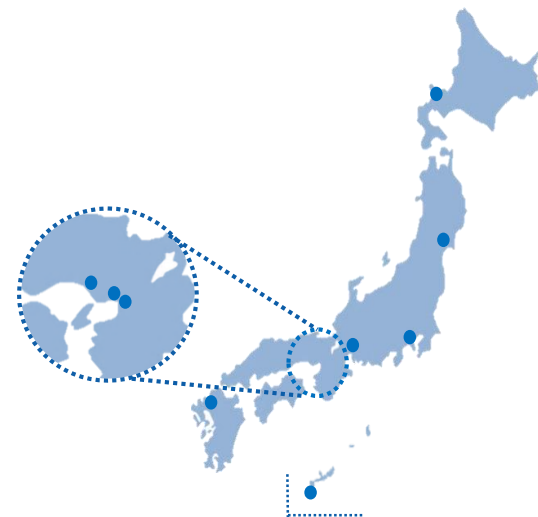
- 1. Company Overview**
- 2. Consolidated Results for FY2019**
- 3. Progress in the 12th Medium-Term Management Plan and the Market Environment**
- 4. Consolidated Earnings Forecast for FY2020**
- 5. Supplementary Materials**



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Name	Takuma Co., Ltd.
Established	June 10, 1938
Representative	Hiroaki Nanjo, President and CEO
Head office location	2-2-33 Kinrakujicho, Amagasaki-shi, Hyogo Prefecture
Capital	13.3 billion yen
Main Business	EPC and after-sales service for environmental and energy plants, including waste treatment facilities and biomass power plants
Directory	Head Office, Osaka Office, Tokyo Branch, Hokkaido Branch, Tohoku Branch, Chubu Branch, Kyushu Branch, Okinawa Branch, and Harima Factory Overseas: Taipei Branch
Employees	(Non-consolidated) 875 (Consolidated) 3,816 (as of March 31, 2020)



The Group will strive to maintain its role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection and achieve 10 billion yen in ordinary profit in FY2020.

We're implementing initiatives to address the Sustainable Development Goals (SDGs) through our business activities.



■ Domestic Environment and Energy Business

Sales and after-sales service of municipal solid waste treatment plants, water treatment plants, energy plants



■ Overseas Environment and Energy Business

Sales and after-sales service of biomass power plants, waste treatment plants



■ Package Boiler Business

Sales and after-sales service of package boiler

- Vacuum-type hot water heaters (Vacotin Heater)
- Once-through boilers (Equos)
- Heat-transfer boilers (Thermoheater)



■ Equipment and Systems Business

- Air-conditioning, water, wastewater, and hygienic equipment installation services
- Equipment for the semiconductor and electronic device industries



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- The Group realized sales and profit growth.
- It achieved its ordinary profit target of at least 10 billion yen.
- The backlog remained high thanks to robust orders.

(100M yen)

	FY2018	FY2019		Change
	Results	Initial forecast	Revised forecast*	Results vs. FY2018
Orders received	1,798	1,400	-	1,488 (309)
Net sales	1,219	1,300	1,340	1,344 125
Operating profit	116	118	93	96 (20)
Ordinary profit	123	125	100	103 (20)
Profit attributable to owners of parent	88	90	70	74 (14)
Profit per share (Yen)	107.10	108.87	84.95	90.36 (16.74)
Dividend per share (Yen)	22.00	26.00	31.00	31.00 9.00
Backlog	3,309	3,409	-	3,453 143

*Revised forecast announced on April 22, 2020

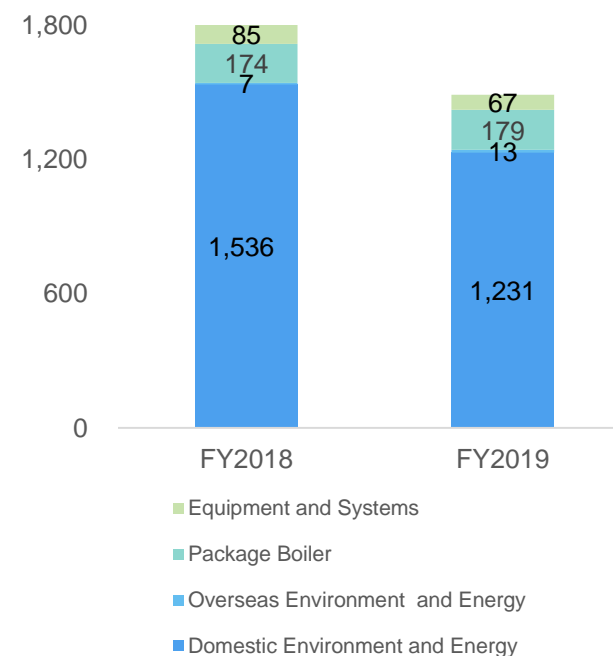
(100M yen)

	FY2018	FY2019	Change
Domestic Environment and Energy	1,536	1,231	(304)
Overseas Environment and Energy	7	13	5
Package Boiler	174	179	4
Equipment and Systems	85	67	(17)
Total	1,804	1,492	(312)
Adjustments	(6)	(3)	2
Total	1,798	1,488	(309)

Points

Orders received remained high because we steadily captured orders for robust demand, primarily from municipal solid waste treatment plants and biomass power plants.

(100M yen)



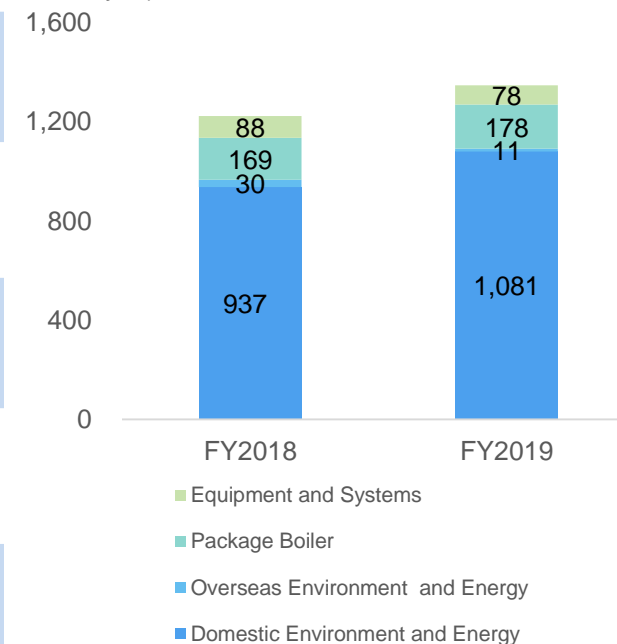
(100M yen)

	FY2018	FY2019	Change
Domestic Environment and Energy	937	1,081	143
Overseas Environment and Energy	30	11	(19)
Package Boiler	169	178	9
Equipment and Systems	88	78	(9)
Total	1,225	1,349	124
Adjustments	(6)	(5)	1
Total	1,219	1,344	125

Points

Net sales rose thanks to steady progress in the construction of previously ordered plants, primarily municipal solid waste treatment plants.

(100M yen)



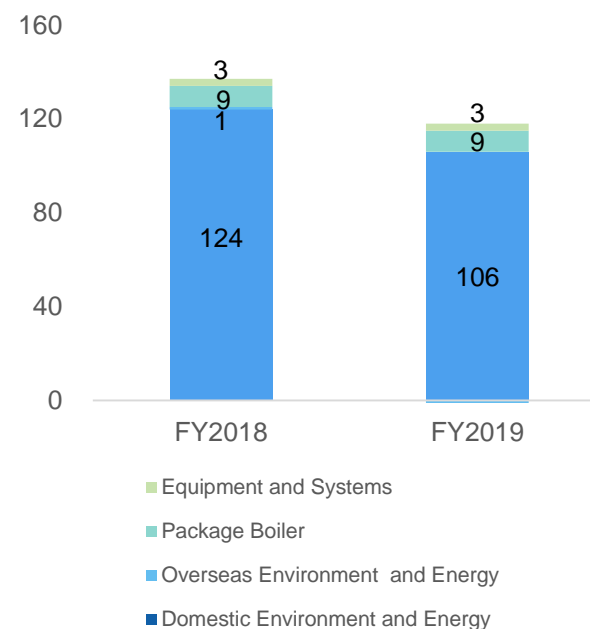
(100M yen)

	FY2018	FY2019	Change
Domestic Environment and Energy	124	106	(17)
Overseas Environment and Energy	1	(2)	(3)
Package Boiler	9	9	0
Equipment and Systems	3	3	0
Total	138	117	(20)
Adjustments	(22)	(21)	0
Total	116	96	(20)

Points

Profits fell due to the posting of a provision for loss on construction contracts. This was due to certain issues at an industrial waste treatment plant delivered by the Domestic Environment and Energy Plant Business.

(100M yen)



(100M yen)

	FY2018	FY2019	Change
Domestic Environment and Energy	3,222	3,373	150
Overseas Environment and Energy	5	7	2
Package Boiler	38	39	0
Equipment and Systems	45	34	(10)
Total	3,311	3,454	142
Adjustments	(2)	(1)	1
Total	3,309	3,453	143

Points

The backlog remained high thanks to robust orders in our municipal solid waste treatment plant EPC and DBO businesses.

(100M yen)

3,500

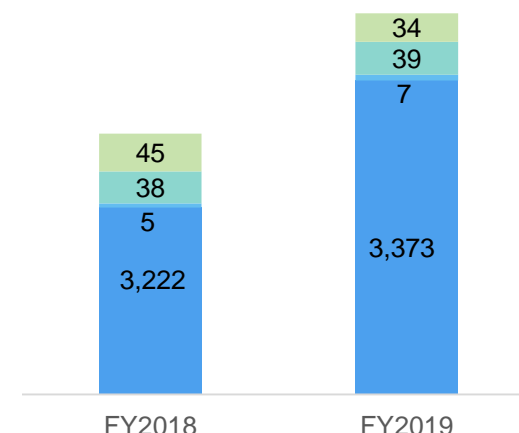
3,400

3,300

3,200

3,100

3,000



FY2018

FY2019

■ Equipment and Systems

■ Package Boiler

■ Overseas Environment and Energy

■ Domestic Environment and Energy

- Total assets rose due to increases in notes and accounts receivable.
- Net assets rose as a result of profit attributable to owners of parent.

(100M yen)

	March 31, 2019	March 31, 2020	Change
Total assets	1,559	1,634	75
Net assets	830	850	19
Capital adequacy ratio (%, points)	53.0	51.8	(1.2)
Net assets per share (yen)	1,000.34	1,043.15	42.81

Increasing production capacity

Accommodating a diverse range of needs against the backdrop of increasing use of renewable energy

- High boiler demand
- Larger boiler size
- Higher-temperature, higher-pressure (higher-efficiency) designs, etc.

Establishing an after-sales service facility (Supply Chain Lab)

Contributing to stable facility operation

- Plant component inventory
- Utilizing information and communication technologies (ICT)
- Collaborating with the Solution Lab

- Planned completion : December 2022
- Planned construction site: (Harima Factory site)
1-2-1, Shinhama, Arai-cho, Takasago City,
Hyogo Prefecture
- Total investment : About 13 billion yen





Initiatives in the municipal solid waste treatment plant business

Strengthening our ability to accommodate general evaluation systems

In keeping with the Act on Promoting Quality Assurance in Public Works, which was enacted in 2005, most local governments in Japan have adopted a general public bidding process founded on a general evaluation system. We've built structures that allow us to offer strategic and effective proposals that address evaluation items that go beyond price.

Receiving an order for a DBO project (construction and operation for a waste treatment facility) from the City of Saitama

This project involves combining the two older of Saitama's four waste treatment facilities and building a new, high-efficiency Energy from Waste plant and a material that meet customer recycling facility using a DBO structure. Takuma received a contract to design and construct the facilities and operate them for 15 years after completion. We will continue to contribute to the formation of a recycling-oriented society by supplying plants needs.

Key facility features

Giving shape to the goal of “creating a recycling-based community”

- Reducing landfill space
- Realizing highly efficient power generation
- Strengthening facilities
- Operating facilities in a safety-conscious manner
- Construction site: 626-1 Hizako, Minuma-ku, Saitama
- Contracted services: Design, construction, and operation of facilities (except sorting equipment) and dismantling and removal of existing facilities
- Design and construction dates: March 2020 to March 2027
- Operation dates: April 2025 to March 2040
- Contract value: 51,586,000,000 yen (not including consumption tax)



Artist's conception of completed facility



(Related SDGs)

Receiving orders for biomass power plants for Chugoku Mokuzai Co., Ltd. (Gohara Factory and Hyuga Factory)

We received orders for two biomass power plants from Chugoku Mokuzai Co., Ltd., a major manufacturer of lumber, laminated lumber, and pre-cut lumber products.

Both of the ordered plants will use timber from thinning and a variety of byproducts from the company’s plants, including bark and sawdust, as fuel. The company plans to sell electricity generated by the plants to consumers through the feed-in tariff (FIT) program.

We will continue to contribute to the spread of renewable energies and the reduction of greenhouse gas emissions by providing highly efficient plants that are adapted to the characteristics of a wide variety of biomass.

Overview of the ordered biomass power generation plants

Chugoku Mokuzai Biomass-fueled Power Plant (Gohara)

- Site: Kure, Hiroshima Prefecture
- Power output capacity: About 10,000 kW
- Fuel: General timber, unused timber
- Scheduled completion: 2022

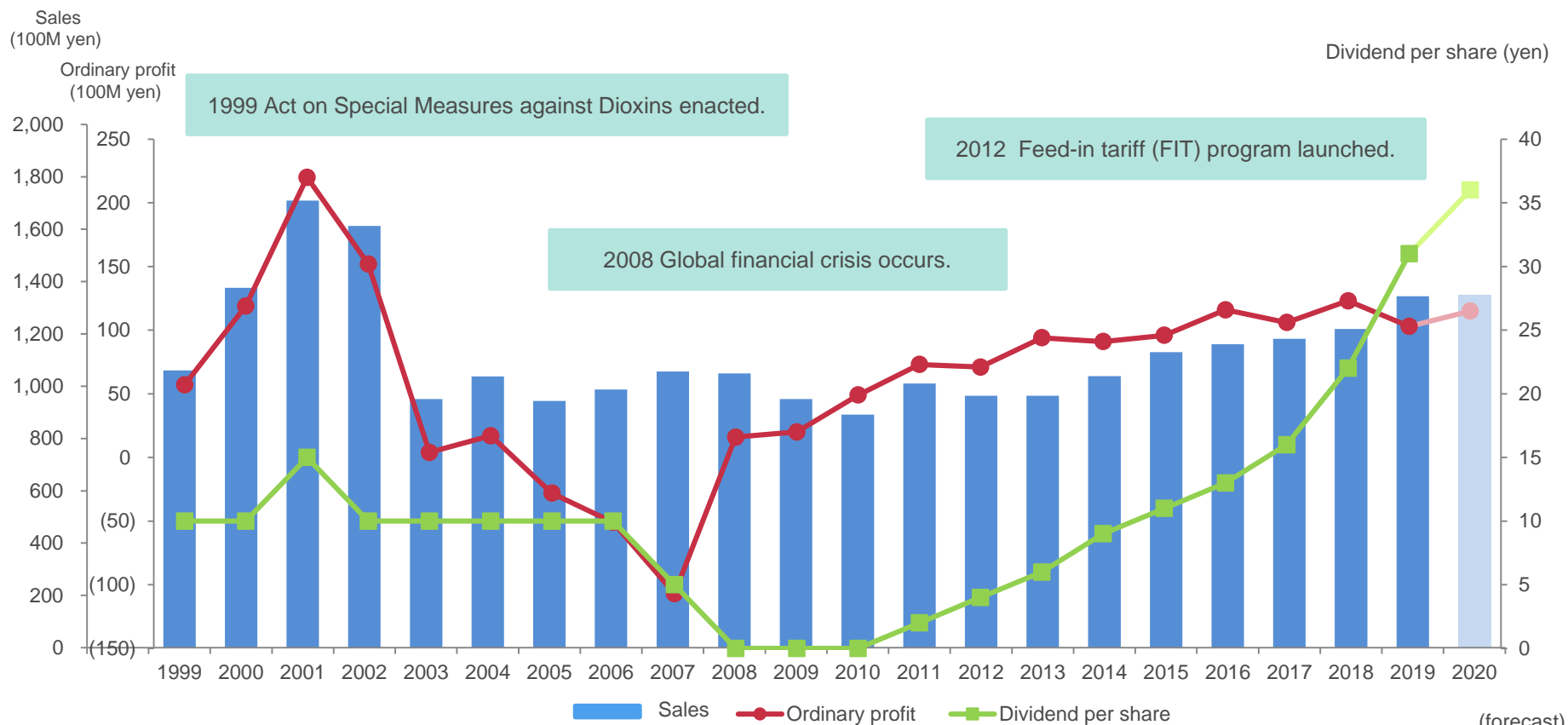
Chugoku Mokuzai Biomass-fueled Power Plant (Hyuga)

- Site: Hyuga, Miyazaki Prefecture
- Power output capacity: 14,500 kW
- Fuel: General timber, unused timber
- Scheduled completion: 2023

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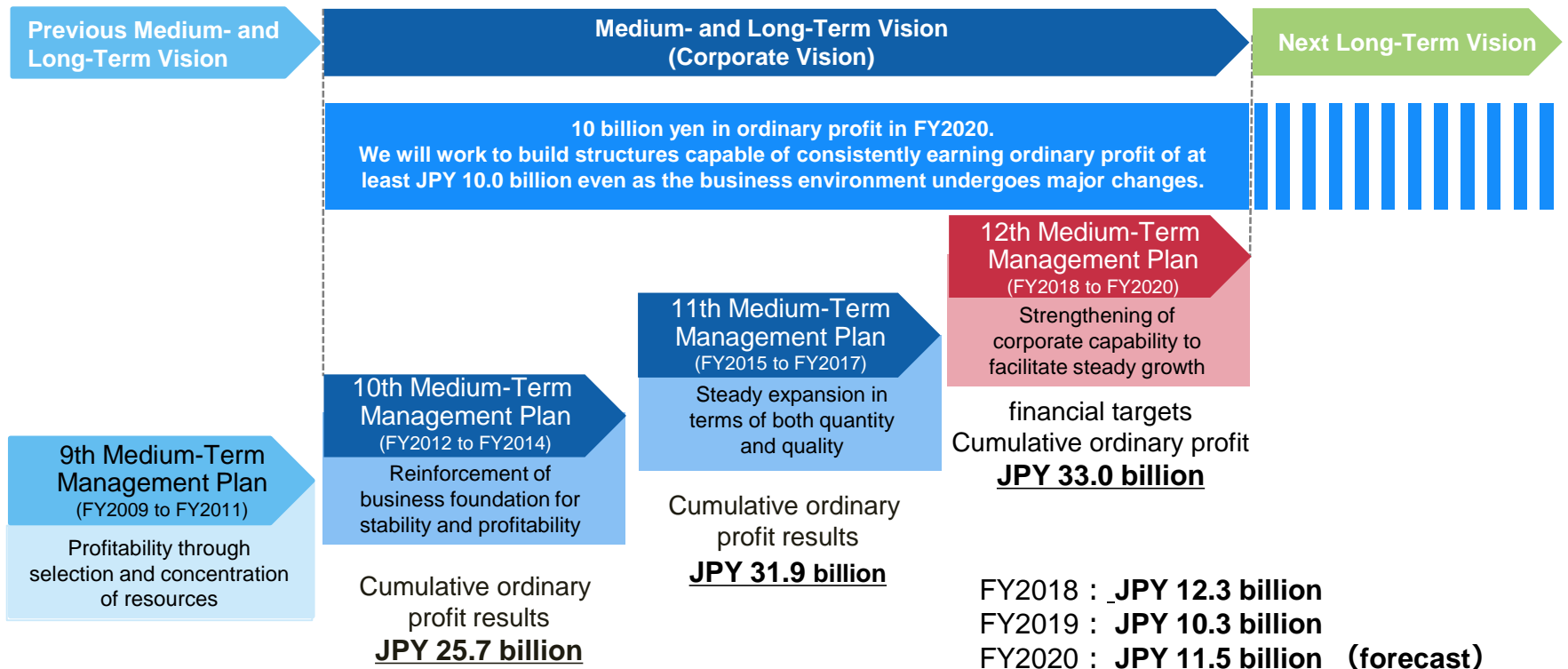
Consolidated results and dividends



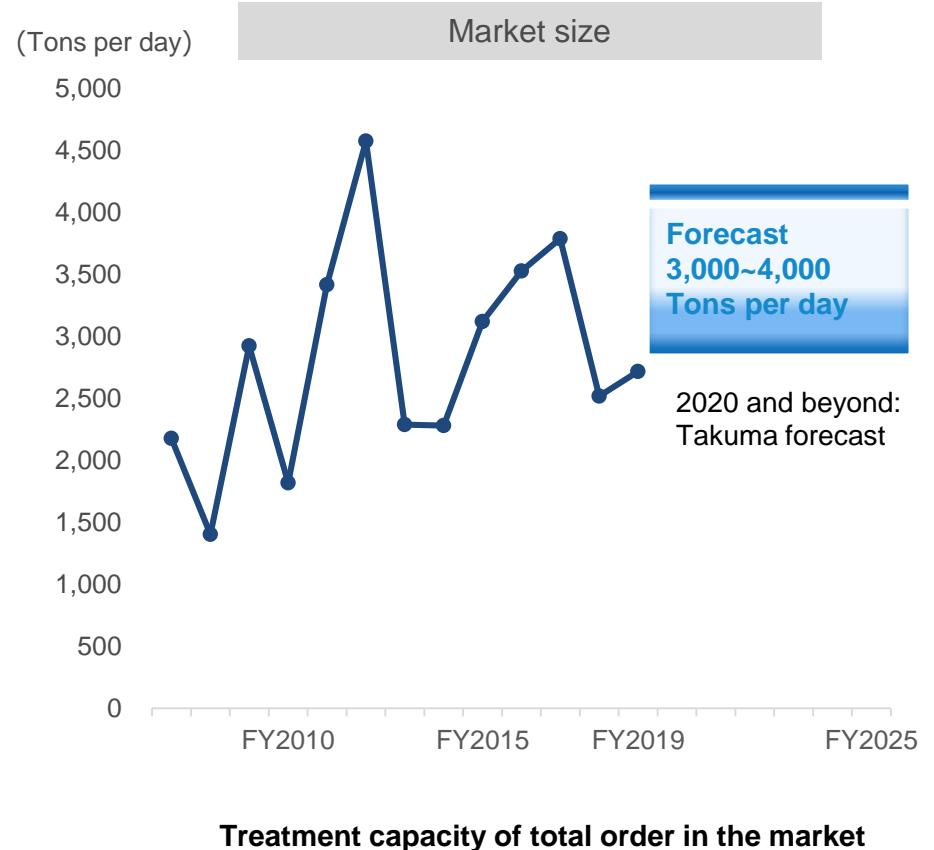
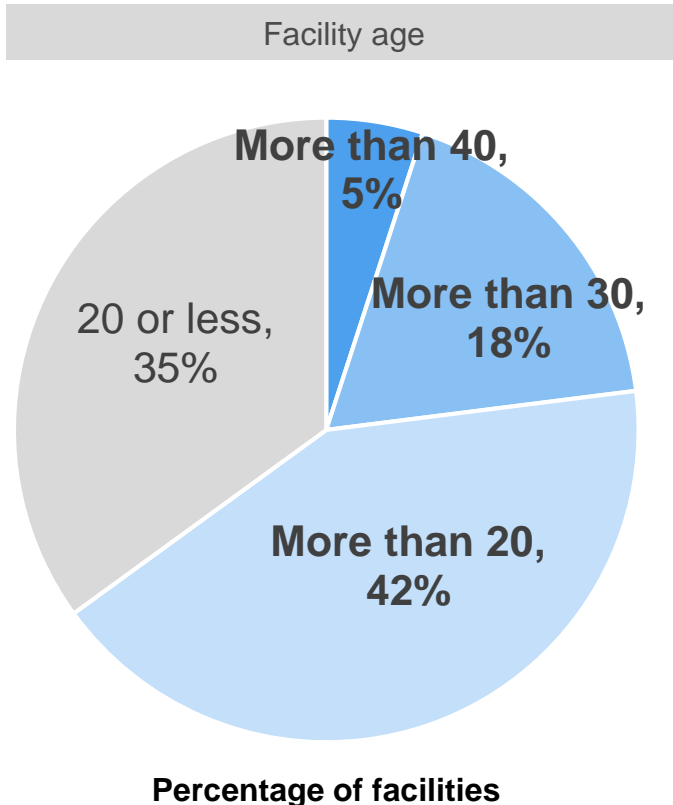
FY	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Sales (100M yen)	1,060	1,376	1,709	1,612	951	1,037	943	987	1,056	1,049	951	891	1,010	963	963	1,038	1,130	1,163	1,181	1,219	1,344	1,350	
Ordinary profit (100M yen)	52	119	220	152	4	17	(28)	(51)	(107)	16	20	43	73	71	94	91	96	116	106	123	103	115	
Dividend per share (yen)	10.00	10.00	15.00	10.00	10.00	10.00	10.00	10.00	10.00	5.00	0.00	0.00	0.00	2.00	4.00	6.00	9.00	11.00	13.00	16.00	22.00	31.00	36.00

- Final stage of the current Medium- and Long-Term Vision
- We're working to build capabilities based on forecast changes in the business environment so that we can realize our vision and achieve steady growth afterwards.

The Group will strive to maintain its role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection



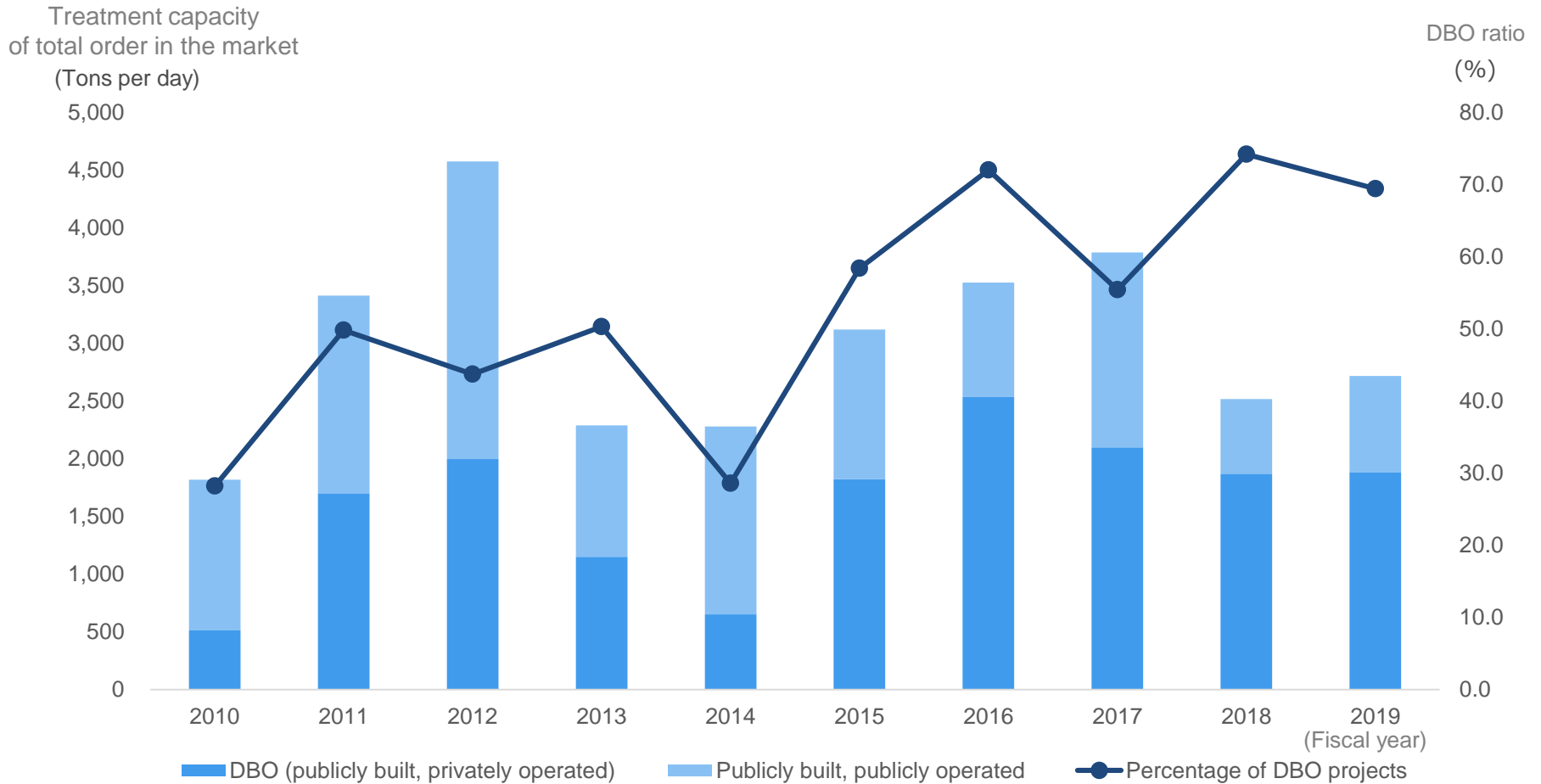
➤ Replacement and service life extension demand continues due to aging.



Source: Compiled by Takuma based on "Municipal Solid Waste Treatment Survey Results, FY2019" (Ministry of the Environment).

※ Based on a study by Takuma

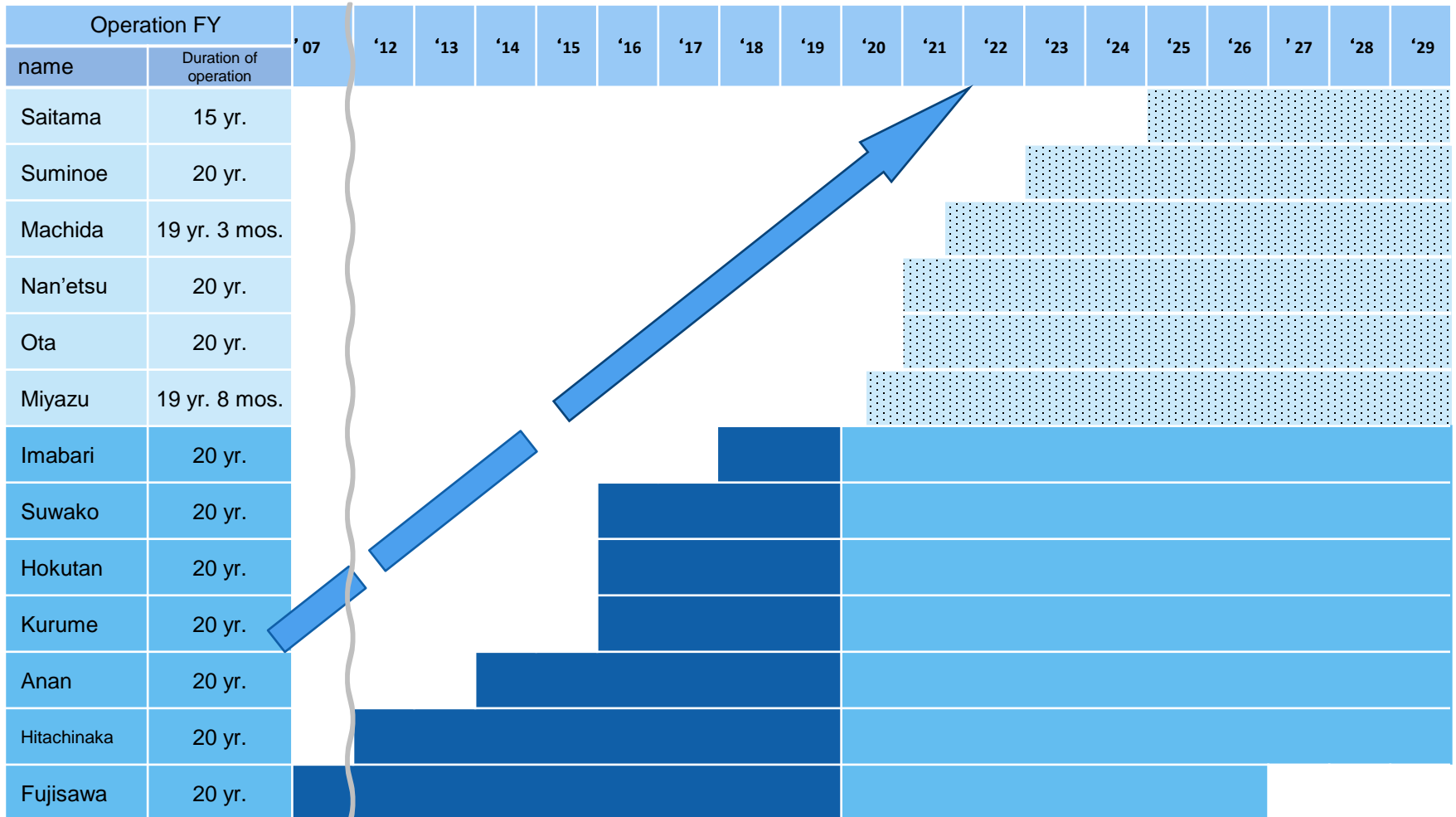
➤ The DBO approach is gaining traction in bidding for facility construction.



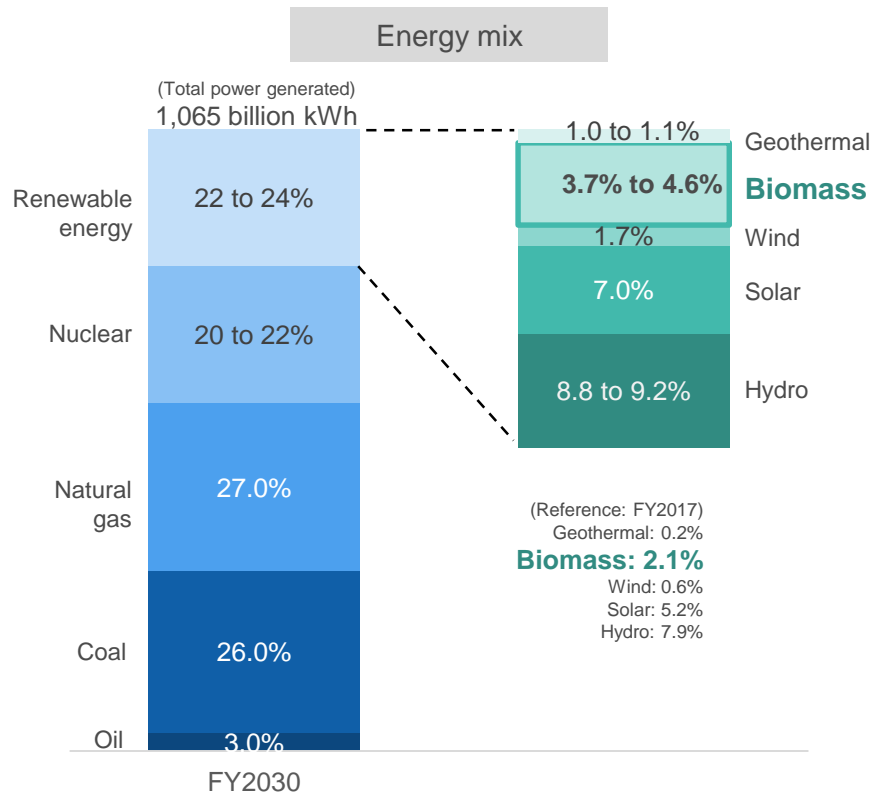
* DBO: An approach in which the public sector provides funding for a private-sector entity to design, build, and operate a facility (design, build, operate).

Based on a study by Takuma.

➤ The number of DBO projects which Takuma received is rising steadily.



- Demand remains strong in order to achieve the FY2030 target for biomass power generation as a percentage of all power generation.
- Electricity purchase prices for the small and medium-size power plants in which Takuma specializes remain high.
- Demand for small power plants (less than 2,000 kW) as facilities that produce power locally for local consumption is expected to grow.



Source: Compiled by Takuma based on "Japan's Energy Problem" (Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry).

Fuel		FY2016	FY2017	FY2018	FY2019	FY2020
Methane fermentation gas		39 yen				
Timber from thinning, etc.	2,000 kW or greater	32 yen				
	Less than 2,000 kW	40 yen				
General timber, etc.	20,000 kW or greater	24 yen	24 yen	21 yen	Transition to bidding (10,000 kW or greater)	
	Less than 20,000 kW		24 yen		24 yen (less than 10,000 kW)	
Liquid fuels	20,000 kW or greater	24 yen	24 yen	21 yen	Transition to bidding	
	Less than 20,000 kW		24 yen			
Construction material waste		13 yen				
Municipal solid waste Other		17 yen				

Source: Compiled by Takuma based on the website of the Agency for Natural Resources and Energy (Ministry of Economy, Trade and Industry).

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- We expect to see continued robust demand for waste incineration plants and biomass power plants.
- Sales and profit will rise thanks to progress on plant construction.
- We plan to increase the dividend per share.

(100M yen)

	FY2019 Results	FY2020 Forecast	Change
Orders received	1,488	1,800	311
Net sales	1,344	1,350	5
Operating profit	96	108	11
Ordinary profit	103	115	11
Profit attributable to owners of parent	74	84	9
Profit per share (Yen)	90.36	103.52	13.16
Dividend per share (Yen)	31.00	36.00	5.00
Backlog	3,453	3,903	450

*The forecast does not take into consideration effects of the COVID-19 pandemic.

Forecast by Segment for FY2020: Orders received, sales, and Backlog

(100M yen)

	FY2019 (Results)	FY2020 (Forecast)
Orders received		
Domestic Environment and Energy	1,231	1,525
Overseas Environment and Energy	13	40
Package Boiler	179	170
Equipment and Systems	67	70
Sales		
Domestic Environment and Energy	1,081	1,105
Overseas Environment and Energy	11	10
Package Boiler	178	170
Equipment and Systems	78	70
Backlog		
Domestic Environment and Energy	3,373	3,793
Overseas Environment and Energy	7	37
Package Boiler	39	39
Equipment and Systems	34	34

Reflecting its goal of maintaining its role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection, the Takuma Group will continue to contribute to the resolution of social issues and the realization of a sustainable society by providing new value in the world.



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2017

Order received for a 50,000 kW biomass power plant(FIT-approved facility)

2012

Feed-in tariff (FIT) program launched.

1999

Act on Special Measures against Dioxins enacted.

1986

The first overseas delivery of a waste incineration plant completed (U.S.A.)

2000 and beyond

Takuma continues to provide technology for utilizing and rendering harmless a variety of waste and biomass energy sources through its businesses in **the renewable energy and environmental protection fields**. We established local subsidiaries overseas and continue to bring our technologies to customers not only in Japan, but also worldwide, particularly in Asia.

1972 to 1999

In 1972, Takuma **changed its name to Takuma Co., Ltd.** As it grew, the company worked to develop technologies in response to a variety of needs.

- Demand for energy savings in industry
- Accommodation of growing and diversifying municipal waste
- Improvement of water quality by water treatment equipment

1951 to 1971

Takuma established its position as a manufacturer of not only boilers, but also **environmental and hygienic equipment**.

- The company developed heat recovery boilers that use waste heat from plants.
- It also developed modern waste incineration technology.
- It entered the water treatment market.

1912 to 1950

Tsunekichi Takuma adopted the founding spirit of **“Serve society through boiler manufacturing,”** marking the birth of the stance and philosophy that would become the cornerstone of Takuma’s operations.

1963

Japan's first 24 hour operating waste incineration plant delivered

1949

Bagasse-fired boiler, the first product of its kind to be exported

Company Motto

Value Technology, Value People, Value the Earth

Management Principles

Takuma will strive for social contribution, corporate value enhancement, long-term corporate development and the satisfaction of all stakeholders by providing goods and services that are needed and recognized as valuable in society.

In 2006, as the management principles of Takuma and the Takuma Group, we have organized and clarified the values of “Service to the nation through boiler manufacturing,”* which is the founding spirit of our company (Takuma Boiler Manufacturing Co., Ltd. at that time). We aim to contribute to society by supplying goods and services that we provide. This spirit can also be applied to the concept of Sustainability and CSR that in recent years has become a vital issue for corporate management.

*Service to the nation through boiler manufacturing,

It was the mission statement of Takuma, then Takuma Boiler Manufacturing Co., Ltd., founded by Tsunekichi Takuma, one of the ten great inventors of Japan during the period of Meiji and Taisho (1868 - 1926).

■ Domestic Environment and Energy Business
Municipal Solid Waste Treatment Plant Business



**No. of waste incineration plants delivered :
 Most of any manufacturer in Japan**

We supply the following products and services to local governments:

Waste incineration plants, Life extension projects, Maintenance

- Stoker-type incinerators
- Methane fermentation systems
- Crushing and sorting systems

EPC*1 and O&M*2 businesses (including DBO*2)
◇DBO business projects: 13 (FY2019, including projects under construction)

*1 EPC: Project construction contracts that include design, procurement, and construction (engineering, procurement, construction)
 *2 DBO: An approach in which the public sector provides funding for a private-sector entity to design, build, and operate a facility (design, build, operate).



Waste incineration plants



Waste incineration plants(DBO)

■ Domestic Environment and Energy Business

Energy plants



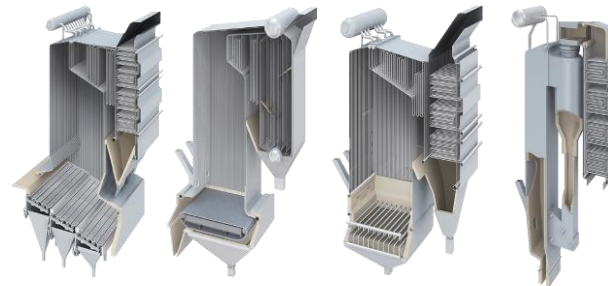
We have extensive experience and expertise that we have accumulated since its founding.

No. of plants delivered under FIT program: **Most of any manufacturer in Japan**

We supply the following products and services to private-sector businesses:

Biomass power plants, Industrial waste treatment plants, O&M, operation management, and maintenance

- Step grate stoker
- Traveling stoker
- Bubbling fluidized bed
- Circulating fluidized bed



We propose the combustion furnace types(above four types) and plant system best suited to the fuel to be used at each facility and plant on a custom-order basis.



Biomass power plants



Industrial waste treatment plants

■ Domestic Environment and Energy Business

Water treatment plants



(Related SDGs)

Energy-saving/energy-creating sludge power generation systems with low greenhouse gas (N₂O) emissions

We supply the following products and services, primarily to water treatment plants operated by local governments:

- Sewage sludge power generation system EPC (Step grate stoker incinerators)
- Moving-bed sand filtration systems

We develop products with emphasis on energy saving and maintainability.



Sewage sludge power generation system



Moving-bed sand filtration systems



Overseas Environment and Energy Business

Sales and after-sales service of biomass power plants, waste treatment plants



Package Boiler Business

Manufacturing and sales of package boiler

- Vacuum-type hot water heaters (Vacotin Heater)
- Once-through boilers (Equos)



Equipment and Systems Business

- Installation services of building equipment (Air-conditioning, water, wastewater, and hygienic equipment)
- Manufacturing and sales of equipment for the semiconductor and electronic device industries



- Breakdown of Consolidated Results for Domestic Environment and Energy Business

(100M yen)

FY2019	Orders received	Net sales	Backlog
Municipal Solid Waste Treatment Plant	855	706	2,426
Energy Plant	319	282	884
Water Treatment Plant, others	56	92	62
Total	1,231	1,081	3,373

Information related to performance forecasts, business plans, and related topics included in this document or otherwise provided during financial briefings is based on data currently available to the Company and on certain assumptions that are deemed to be reasonable. This information includes elements of risk and uncertainty.

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