



< IR Meeting Material >

KOBELCO

Financial Results for the First Half of Fiscal 2018 and Forecast for the Full Fiscal Year

October 30, 2018
KOBE STEEL, LTD.



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– CONTENTS –

- 1 . Financial Results for the First Half of Fiscal 2018
- 2 . Forecast for Fiscal 2018
- 3 . Financial Strategy
- 4 . Reference Information



1. Financial Results for the First Half of Fiscal 2018



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Financial Results for the First Half of Fiscal 2018

(Billions of yen)

	FY2017	FY2018		Change	
	1H ①	Forecast ②	Actual ③	③-①	③-②
Net Sales	907.0	1,000.0	958.2	51.1	(41.8)
Operating Income	51.4	20.0	23.1	(28.2)	3.1
Ordinary Income	45.7	10.0	9.3	(36.4)	(0.7)
Excluding Inventory Valuation	41.2	7.5	6.8	(34.4)	(0.7)
Extraordinary Income	※ ¹ 9.0	33.9	※ ^{2,3} 36.3	27.3	2.4
Net Income Attributable to Owners of the Parent	39.3	30.0	33.3	(5.9)	3.3

※1 Gain on sale of investment securities: 9.0 billion yen

※2 Gain on acquisition of subsidiary (Turned Shinko Wire into a subsidiary) : 4.8 billion yen

※3 Gain on sale of investment securities (Sold 75% of shares held in Shinko Real Estate) : 31.4 billion yen



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Net Sales by Segment

(Billions of yen)

Net Sales	FY2017	FY2018		Change	
	1H ①	Forecast ②	Actual ③	③-①	③-②
Iron & Steel	354.4	365.0	359.5	5.0	(5.5)
Welding	39.7	40.0	39.8	0.0	(0.2)
Aluminum & Copper	174.3	190.0	181.3	7.0	(8.7)
Machinery	70.5	89.0	84.2	13.7	(4.8)
Engineering	48.0	58.0	55.4	7.4	(2.6)
Construction Machinery	182.7	215.0	204.9	22.2	(10.1)
Electric Power	32.9	35.0	35.8	2.8	0.8
Other Businesses	29.2	24.0	22.2	(6.9)	(1.8)
Adjustment	(24.9)	(16.0)	(25.2)	(0.2)	(9.2)
Total	907.0	1,000.0	958.2	51.1	(41.8)

Ordinary Income (Loss) by Segment

(Billions of yen)

Ordinary Income (Loss)	FY2017	FY2018		Change	
	1H ①	Forecast ②	Actual ③	③-①	③-②
Iron & Steel	18.4	0.0	(1.7)	(20.1)	(1.7)
Welding	2.5	1.5	0.9	(1.6)	(0.6)
Aluminum & Copper	7.9	0.5	1.6	(6.2)	1.1
Machinery	(0.5)	1.5	0.8	1.4	(0.7)
Engineering	1.7	0.5	1.0	(0.6)	0.5
Construction Machinery	11.4	14.0	13.5	2.0	(0.5)
Electric Power	3.3	(5.0)	(3.6)	(6.9)	1.4
Other Businesses	1.7	0.5	0.8	(0.8)	0.3
Adjustment	(0.9)	(3.5)	(4.2)	(3.3)	(0.7)
Total	45.7	10.0	9.3	(36.4)	(0.7)



2. Forecast for Fiscal 2018



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Forecast for FY2018

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change	
	Full Year ①	1H	2H	Full Year ②	1H	2H	Full Year ③	③-①	③-②
Net Sales	1,881.1	1,000.0	1,030.0	2,030.0	958.2	1,071.8	2,030.0	148.9	-
Operating Income	88.9	20.0	35.0	55.0	23.1	26.9	50.0	(38.9)	(5.0)
Ordinary Income	71.1	10.0	25.0	35.0	9.3	15.7	25.0	(46.1)	(10.0)
Excluding Inventory Valuation	56.1	7.5	24.5	32.0	6.8	13.2	20.0	(36.1)	(12.0)
Extraordinary Income	2.0	33.9	-	33.9	※ 36.3	-	※ 36.3	34.3	2.4
Net Income Attributable to Owners of the Parent	63.1	30.0	15.0	45.0	33.3	1.7	35.0	(28.1)	(10.0)

※ Gain on acquisition of subsidiary (Turned Shinko Wire into a subsidiary): 4.8 billion yen
 Gain on sale of investment securities (Sold 75% of shares held in Shinko Real Estate) : 31.4 billion yen



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Net Sales by Segment

(Billions of yen)

Net Sales	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change	
	Full Year ①	1H	2H	Full Year ②	1H	2H	Full Year ③	③-①	③-②
Iron & Steel	715.5	365.0	375.0	740.0	359.5	400.5	760.0	44.5	20.0
Welding	80.5	40.0	42.0	82.0	39.8	42.2	82.0	1.5	-
Aluminum & Copper	349.5	190.0	195.0	385.0	181.3	193.7	375.0	25.5	(10.0)
Machinery	161.3	89.0	95.0	184.0	84.2	96.8	181.0	19.7	(3.0)
Engineering	122.8	58.0	92.0	150.0	55.4	95.6	151.0	28.2	1.0
Construction Machinery	364.5	215.0	195.0	410.0	204.9	200.1	405.0	40.5	(5.0)
Electric Power	72.1	35.0	36.0	71.0	35.8	40.2	76.0	3.9	5.0
Other Businesses	68.8	24.0	20.0	44.0	22.2	20.8	43.0	(25.8)	(1.0)
Adjustment	(54.3)	(16.0)	(20.0)	(36.0)	(25.2)	(17.8)	(43.0)	11.3	(7.0)
Total	1,881.1	1,000.0	1,030.0	2,030.0	958.2	1,071.8	2,030.0	148.9	-



ECOWAY

Ordinary Income (Loss) by Segment

(Billions of yen)

Ordinary Income (Loss)	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change	
	Full Year ①	1H	2H	Full Year ②	1H	2H	Full Year ③	③-①	③-②
Iron & Steel	17.3	0.0	3.0	3.0	(1.7)	4.7	3.0	(14.3)	-
Welding	4.9	1.5	2.5	4.0	0.9	2.1	3.0	(1.9)	(1.0)
Aluminum & Copper	11.8	0.5	1.5	2.0	1.6	(3.6)	(2.0)	(13.8)	(4.0)
Machinery	2.3	1.5	4.0	5.5	0.8	1.7	2.5	0.2	(3.0)
Engineering	6.9	0.5	4.0	4.5	1.0	4.0	5.0	(1.9)	0.5
Construction Machinery	21.9	14.0	10.0	24.0	13.5	10.5	24.0	2.1	-
Electric Power	7.9	(5.0)	3.0	(2.0)	(3.6)	1.6	(2.0)	(9.9)	-
Other Businesses	5.4	0.5	3.5	4.0	0.8	3.7	4.5	(0.9)	0.5
Adjustment	(7.5)	(3.5)	(6.5)	(10.0)	(4.2)	(8.8)	(13.0)	(5.5)	(3.0)
Total	71.1	10.0	25.0	35.0	9.3	15.7	25.0	(46.1)	(10.0)



Dividend

■ Dividend Policy

Kobe Steel aims to pay dividends on a continuous and stable basis. Dividends are decided after taking into full account the Company's financial condition, business performance, future capital needs, and other factors.

On this basis, Kobe Steel has decided to pay an interim dividend of 10 yen per share for the first half of fiscal 2018. The year-end dividend for the end of fiscal 2018 has not yet been determined.

■ Dividend Payout Ratio (Target)

Approximately 15% to 25% of net income attributable to owners of the parent for the time being.

■ Dividend Results

	FY2014			FY2015			FY2016			FY2017			FY2017		
	Interim	Year-end	Year	Interim	Year-end	Year	Interim	Year-end	Year	Interim	Year-end	Year	Interim	Year-end	Year
Dividends per share in yen	2.0	2.0	4.0	2.0	–	2.0	–	–	–	–	30.0	30.0	10.0	Undetermined	Undetermined
Dividend per net assets			16.8%			–			–			17.2%			

※Kobe Steel carried out a share consolidation at a ratio of 10 shares to 1 share effective on October 1, 2016.



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【Iron & Steel】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	715.5	365.0	375.0	740.0	359.5	400.5	760.0	20.0
Ordinary Income (Loss)	17.3	0.0	3.0	3.0	(1.7)	4.7	3.0	-
Inventory Valuation	9.0	0.0	0.5	0.5	0.5	2.5	3.0	2.5

FY2018

- Measures for profit improvement, including consolidation of upstream operations at Kakogawa Works, are steadily being carried out.
- Steel demand is expected to remain firm mainly in the automotive sector.
- The outlook for ordinary income is unchanged from the previous forecast. Although it anticipates being affected by the temporary trouble that occurred in mid-July at its production facility for sintered ore and impacted by natural disasters, inventory valuation effects and other factors are anticipated to improve.



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[Iron & Steel] Strengthening Profitability

(Billions of yen)

Margin and product mix

Production & shipments	+13.5
Raw material prices	(15.0)
Exchange rate changes	± 0.0

Margin and product mix

Production & shipments	(4.0)
Raw material prices	+1.5
Exchange rate changes	+0.5

Consolidation of upstream operations

(Impact from improved profitability +15 billion yen/year)

Start-up of related equipment has progressed as planned. Consolidated operations started in Nov. 2017.

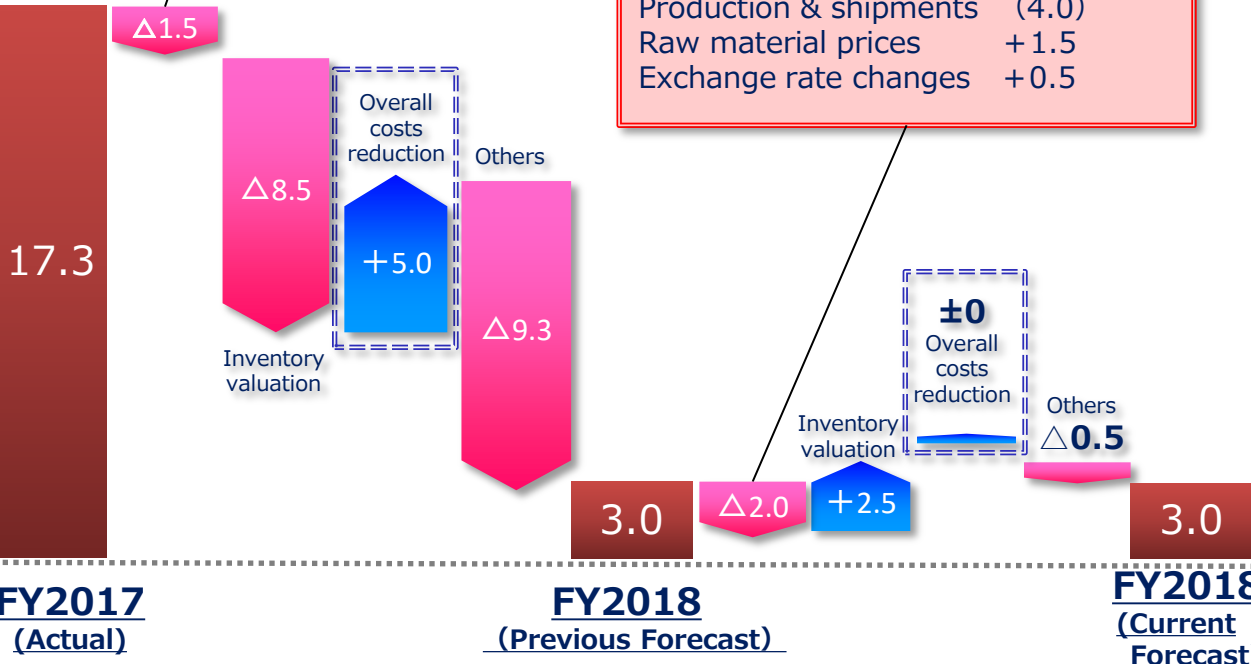
FY2017	+ 6.5	(actual)	+8.5
FY2018	+ 15.0	(forecast)	

Additional measures to improve profitability

(Impact from improved profitability +30 billion yen/ cumulative 5 years)

Profitability is steadily improving owing to capital investment, cost cuts at the production level, and lower raw material costs.

FY16	+ 8.5	(actual)	+8.0
FY17	+ 18.0	(actual)	
FY18	+ 26.0	(forecast)	
FY20	+ 30.0	(plan)	





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【Iron & Steel】 Production & Sales

		FY2017			FY2018	FY2018	
		1H	2H	Full year	Full year (Previous Forecast)	1H	Full year (Current Forecast)
Japan's domestic crude steel production	(Millions of tons)	52.0	52.8	104.8		52.2	

<Domestic steel inventory trend>

Ordinary steel products	(Millions of tons)	5.7	5.8	--		6.0	end of Aug.
Rolled sheets	(Millions of tons)	4.2	4.2	--		4.2	end of Jul.

<Domestic steel inventory trend>

Finished auto production	(Millions of cars)	4.7	5.0	9.7		3.1	end of Jul.
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<KOBELCO STEEL, LTD.>

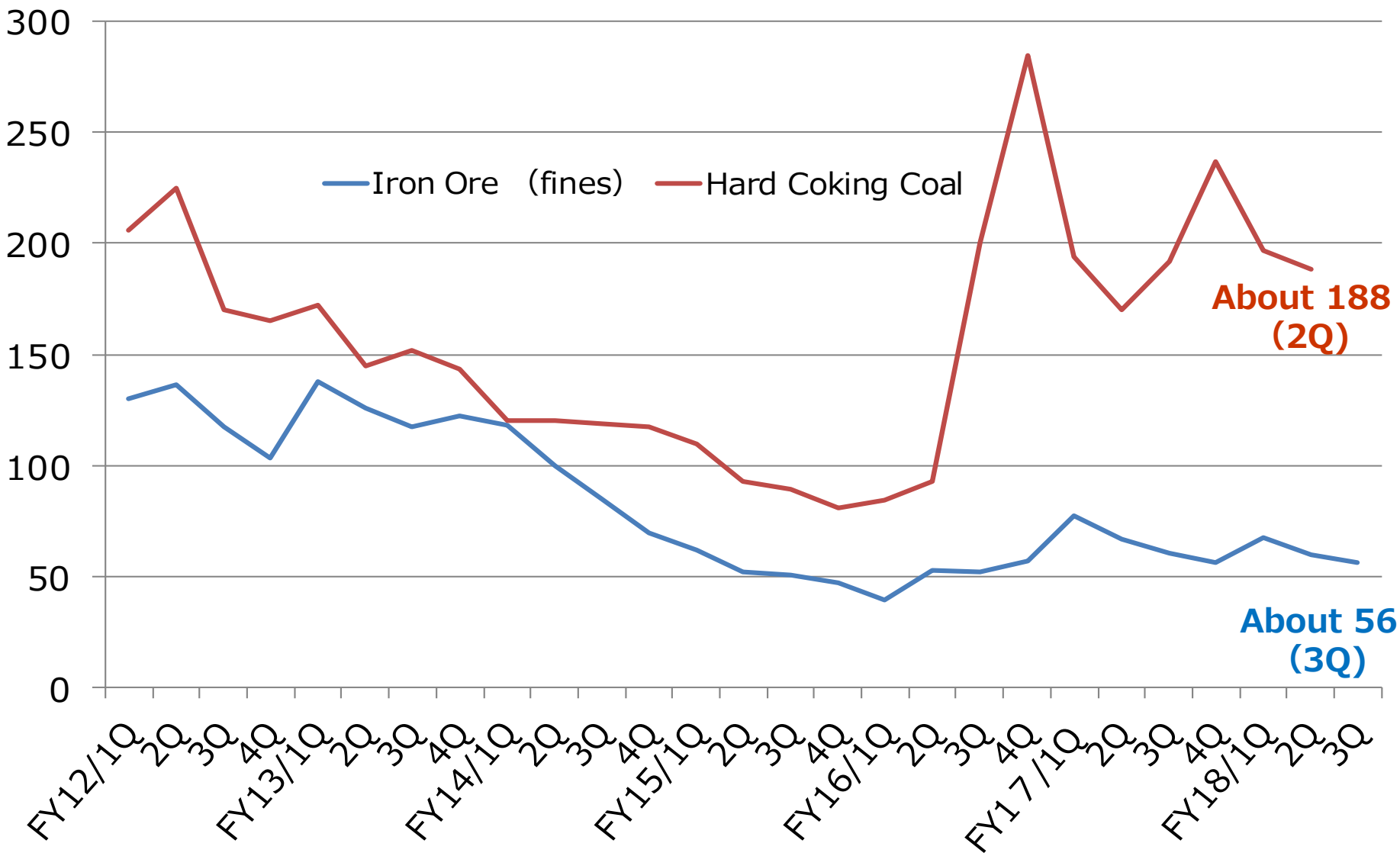
Crude steel production	(Millions of tons)	3.9	3.5	7.5	about 6.9	3.4	about 6.9
Sales volume	(Millions of tons)	3.0	2.9	6.0	about 5.7	2.7	about 5.7
(Domestic)		(2.2)	(2.1)	(4.4)		(2.0)	
(Exports)		(0.8)	(0.8)	(1.6)		(0.7)	
Average steel selling price	(Thousands of yen/ton)	81.5	81.5	81.5		85.2	
Export ratio (value basis)		26.4%	28.0%	27.2%		25.7%	



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Iron Ore & Coking Coal Price Trends

(\$/ton)

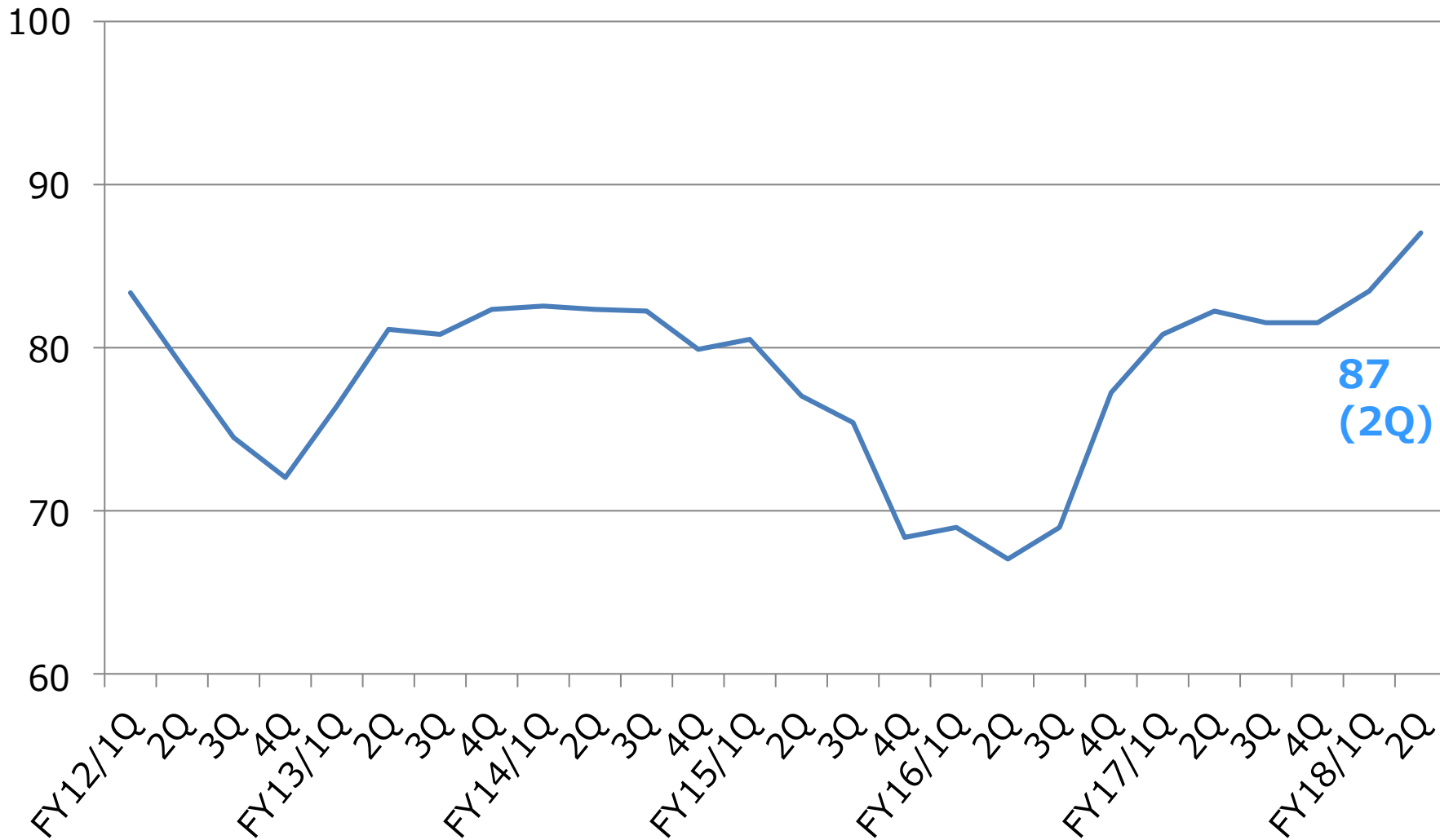




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Steel Product Price Trends at Kobe Steel

(Thousands of yen/ton)





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【Welding】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	80.5	40.0	42.0	82.0	39.8	42.2	82.0	-
Ordinary Income	4.9	1.5	2.5	4.0	0.9	2.1	3.0	(1.0)

<Sales volume of KSL Group>

(Thousands of tons)

	FY2017			FY2018	FY2018	
	1H	2H	Full Year	Full Year (Previous Forecast)	1H	Full Year (Current Forecast)
Domestic	65	63	128	/	60	/
Overseas	79	83	162		83	
Total	144	146	291		about 295	

FY2018

- The sales volume of welding materials is expected to remain at the same level as the previous forecast. Difficult conditions are expected to continue mainly in the shipbuilding sector in China and Korea. On the other hand, demand is expected to increase in the energy sector in China and automotive sector in Southeast Asia.
- Ordinary income is anticipated to decrease owing to higher operating costs from natural disasters and increases in raw material costs.



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【Aluminum & Copper】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	349.5	190.0	195.0	385.0	181.3	193.7	375.0	(10.0)
Ordinary Income (Loss)	11.8	0.5	1.5	2.0	1.6	(3.6)	(2.0)	(4.0)
Inventory Valuation	6.0	2.5	0.0	2.5	2.0	0.0	2.0	(0.5)

<Sales volume of KSL>

(Thousands of tons)

	FY2017			FY2018	FY2017	
	1H	2H	Full Year	Full year (Previous Forecast)	1H	Full Year (Current Forecast)
Aluminum Rolled Products (Domestic)	153	132	285	about285	137	about270
(Exports)	40	38	78	about80	41	about80
Copper Rolled Products	71	70	142	about145	73	about145

FY2018

- Demand for rolled aluminum products and rolled copper products for automobiles is expected to remain firm. However, the sales volume of rolled aluminum products is expected to decrease due to lower production efficiency.
- In addition, ordinary income is anticipated to decrease compared with the previous forecast, owing to higher energy costs and the impact of the misconduct which affected a portion of the products.



ECO WAY

【Machinery】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	161.3	89.0	95.0	184.0	84.2	96.8	181.0	(3.0)
Ordinary Income	2.3	1.5	4.0	5.5	0.8	1.7	2.5	(3.0)
Orders	151.1	—	—	about 165	72.5	about 92	about 165	—

FY2018

- Orders are expected to be similar to the previous forecast owing to continued firm demand for plastic processing machinery and other products for the petrochemical sector in China.
- Although the market for compressors is on a recovery track, ordinary income is anticipated to decrease because of the severe competitive environment with competitors and lower profitability due to the higher prices of materials and equipment.



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【Engineering】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	122.8	58.0	92.0	150.0	55.4	95.6	151.0	1.0
Ordinary Income	6.9	0.5	4.0	4.5	1.0	4.0	5.0	0.5
Orders	119.2	—	—	about 120	72.2	about 53	about 125	about 5.0

FY2018

- Orders are expected to increase compared with the previous forecast, supported mainly by firm demand in the waste treatment and water treatment business.
- Ordinary income is anticipated to increase slightly from the previous forecast due to steady progress in fulfilling current orders.



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【Construction Machinery】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	364.5	215.0	195.0	410.0	204.9	200.1	405.0	(5.0)
Ordinary Income	21.9	14.0	10.0	24.0	13.5	10.5	24.0	-

FY2018

- Unit sales of hydraulic excavators are expected to be similar to the previous forecast, supported by firm demand including China.
- Unit sales of crawler cranes are expected to decline due to delays in pre-shipment inspection following the crane collapse accident at Kobe Steel's Takasago Works in July 2018, and loss is anticipated due to on the disposal of the crane involved in the accident.
- On the other hand, ordinary income is anticipated to be similar to the previous forecast owing to the write-off of allowances for doubtful receivables related to the hydraulic excavator business in China.



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【Electric Power】

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)			FY2018 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	② - ①
Net Sales	72.1	35.0	36.0	71.0	35.8	40.2	76.0	5.0
Ordinary Income (Loss)	7.9	(5.0)	3.0	(2.0)	(3.6)	1.6	(2.0)	-

FY2018

- Ordinary income is anticipated to be similar to the previous forecast owing to temporary expenses associated with arranging financing for the new power generation project.
- All legal procedures were completed to enable construction of new power generation plant on the former blast furnace site at Kobe Works. Construction began on October 1.
(See P.37-40 for related information)



3. Financial Strategy



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Financial Strategy

Basic Policy

➤ In principle, business cash flows are used to finance large strategic investments to grow the materials and machinery businesses, as well as for regular investments that support the business foundation.

➤ **D/E ratio 1 time or less**

Cash Generation Measures

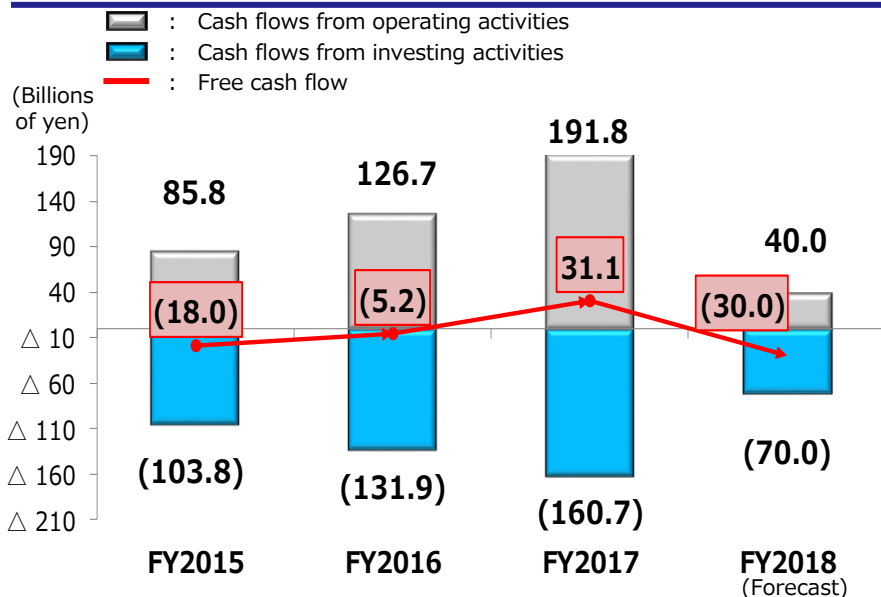
➤ Consider and implement **cash generation measures on a scale of 100.0 billion yen** to steadily implement growth investments, while maintaining financial discipline.

✓ Cash generation measures already implemented from FY2016 to FY2018

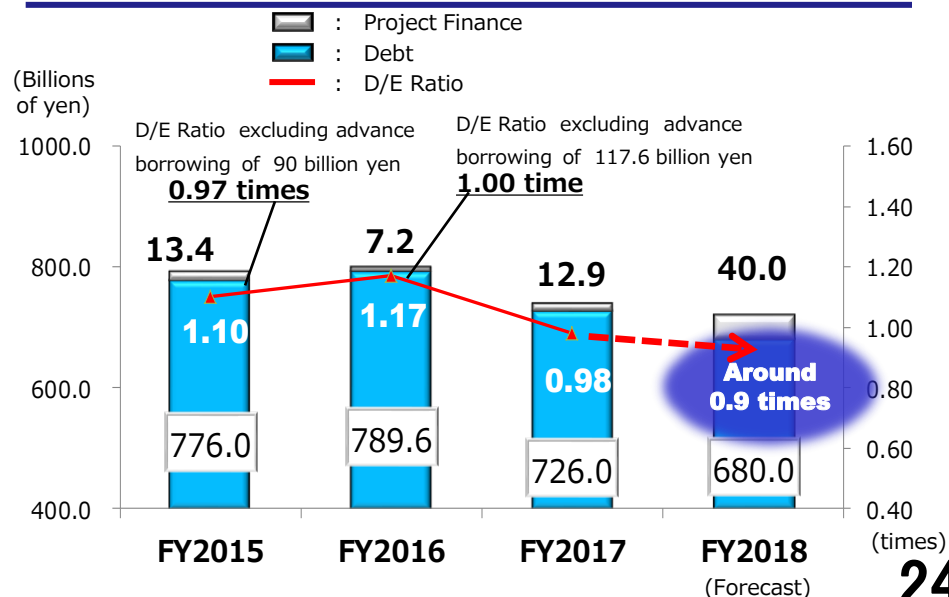
Improve working capital 19 billion yen
Asset sales 91 billion yen, etc.

Total: about 110 billion yen

《Free cash flow》



《Debt · D/E ratio》





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4. Reference Information



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Cash Flows

(Billions of yen)

	FY2017	FY2018 (Previous Forecast)	FY2018 (Current Forecast)	Change
	Full year	Full year ①	Full year ②	② – ①
Cash Flows from Operating Activities	191.8	60.0	40.0	(20.0)
Cash Flows from Investing Activities	(160.7)	(75.0)	(70.0)	5.0
Free Cash Flow (Excluding Project Financing)	31.1	(15.0)	(30.0)	(15.0)
Free Cash Flow	29.2	(30.0)	(40.0)	(10.0)
Cash and Deposits (Excluding Project Financing)	158.2	95.0	100.0	5.0



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Capital Investment

(Billions of yen)

	FY2015	FY2016	FY2017	FY2018 Forecast
Capital Investment (Accrual Basis)	109.9	160.2	128.6	150.0
Ratio of Depreciation	116%	167%	126%	150%
Capital Investment (Payment Basis)	99.1	138.9	136.6	150.0
Ratio of Depreciation	105%	144%	134%	150%
Depreciation	94.8	96.2	102.0	100.0



Financial Indices

	FY2015	FY2016	FY2017	FY2018 Forecast
ROS (※1)	1.6%	(1.1%)	3.8%	1.2%
Net Income (Loss) per Share (※2)	(59.34 yen)	(63.54 yen)	174.43 yen	96.60 yen
D/E ratio (※3)	(※4) 1.10	(※5) 1.17	about 0.98	about 0.9
ROA (※6)	1.3%	(0.8%)	3.1%	1.1%
ROE (※7)	(2.9%)	(3.4%)	8.9%	4.7%

※1 : ROS=Ordinary Income / Net Sales

※2 : Kobe Steel carried out a share consolidation at a ratio of 10 shares to 1 share effective on October 1, 2016.

Therefore, net income per share takes into account this share consolidation.

※3 : D/E ratio: Debt (excluding IPP project finance)/stockholders' equity (FY2015 shareholders' equity)

※4 : Includes early procurement of borrowings for FY2016 (90 billion yen)

D/E ratio 0.97 times (excluding early procurement of borrowings)

※5 : Includes early procurement of borrowings for FY2017 (117.6 billion yen)

D/E ratio 1.00 time (excluding early procurement of borrowings)

※6 : ROA=Ordinary Income / Total Assets

※7 : ROE=Net Income / Equity



ECO WAY

Analysis of Ordinary Income in Iron & Steel Segment

【 FY2017 1H ⇒ FY2018 1H 】

(Billions of yen)

	FY2017			FY2018		
	1H	2H	Full year	1H	2H	Full year
Ordinary Income (Loss)	18.4	(1.0)	17.3	(1.7)	4.7	3.0

(20.1)

Positive Factors			Negative Factors	
Overall cost reduction	+	1.0	Production and shipments	(7.0)
Exchange rate changes	±	0.0	Raw material prices	(3.0)
			Inventory valuation	(2.0)
			Subsidiaries & affiliates	(1.5)
			Other	(7.6)
Total	+	1.0	Total	(21.1)



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Analysis of Ordinary Income in Iron & Steel Segment

【 FY2018 1H(previous forecast) ⇒ FY2018 1H(actual) 】

(Billions of yen)

	FY2018 Previous Forecast			FY2018 Current Forecast		
	1H	2H	Full Year	1H	2H	Full Year
Ordinary Income (Loss)	0.0	3.0	3.0	(1.7)	4.7	3.0

Positive Factors			Negative Factors	
Raw material prices	+	2.0	Production and shipments	(5.5)
Overall cost reduction	±	0.0	Subsidiaries & affiliates	(0.5)
Inventory valuation	+	0.5		
Exchange rate changes	+	0.5		
Other		1.3		
Total	+	4.3	Total	(6.0)



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Analysis of Ordinary Income in Iron & Steel Segment

【 FY2017 ⇒ FY2018 】

(Billions of yen)

	FY2017			FY2018		
	1H	2H	Full Year	1H	2H	Full Year
Ordinary Income (Loss)	18.4	(1.0)	17.3	(1.7)	4.7	3.0

(14.3)

Positive Factors			Negative Factors	
Production and shipments	+	9.5	Raw material prices	(13.5)
Overall cost reduction	+	5.0	Inventory valuation	(6.0)
Exchange rate changes	+	0.5	Subsidiaries & affiliates	(1.0)
			Other	(8.8)
Total	+	15.0	Total	(29.3)



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Analysis of Ordinary Income in Iron & Steel Segment

【 FY2018 Previous Forecast ⇒ FY2018 Current Forecast 】

(Billions of yen)

	FY2018 Previous Forecast			FY2018 Current Forecast		
	1H	2H	Full Year	1H	2H	Full Year
Ordinary Income (Loss)	0.0	3.0	3.0	(1.7)	4.7	3.0

+0.0

Positive Factors			Negative Factors	
Raw material prices	+	1.5	Production and shipments	(4.0)
Overall cost reduction	±	0.0	Subsidiaries & affiliates	(0.5)
Inventory valuation	+	2.5		
Exchange rate changes	+	0.5		
Overall cost reduction	+	0.0		
Total	+	4.5	Total	(4.5)



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Analysis of Ordinary Income in Iron & Steel Segment

【 FY2017 1H ⇒ FY2017 2H 】

(Billions of yen)

	FY2017			FY2018		
	1H	2H	Full Year	1H	2H	Full Year
Ordinary Income (Loss)	18.4	(1.0)	17.3	(1.7)	4.7	3.0

+6.4

Positive Factors			Negative Factors	
Production and shipments	+	10.5	Raw material prices	(1.0)
Overall cost reduction	+	0.5	Exchange rate changes	(1.0)
Inventory valuation	+	2.0	Subsidiaries & affiliates	(0.5)
			Other	(4.1)
Total	+	13.0	Total	(6.6)



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Thorough implementation of measures to prevent the recurrence of misconduct concerning some of the products

The Kobe Steel Group would again like to express its sincerest apologies to its customers, business partners, shareholders and other stakeholders for having caused substantial trouble due to the misconduct of Kobe Steel and its group.

To fulfill our responsibility on the quality issue and once again earn your confidence, we will go back to the basics of *monozukuri*. We will renew our awareness that solid quality is at the heart of confidence and strive to prevent recurrence with an unwavering resolution.

Overview of measures to prevent recurrence

I. Governance:
Building a quality governance system

*See the next page for details.

II. Management:
Ensuring quality control

III. Process:
Strengthening quality control process

Specific actions taken in Project for Restoring Trust under the guidance of the President

Monitoring and deliberations by the Independent Quality Supervision Committee

Regular reporting of progress to the Board of Directors



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Progress of our Product Safety Verification (as of May.18, 2018)

For customers to whom nonconforming products were shipped, found through the self-inspections conducted by the Kobe Steel Group, and through the investigations by the Independent Investigation Committee (the "IIC") covering the past one year, and for products other than those delivered directly to customers, Kobe Steel at this time has not confirmed cases that would require the immediate suspension of use or immediate recall of the products.

Major category	Company name	Material	Main purpose	Announced on October 26, 2017		Since the IIC's establishment (October 26, 2017)	
				No. of customers	Safety verification	No. of customers	Safety verification
Aluminum & Copper	Kobe Steel, Ltd. Aluminum & Copper Business	Aluminum sheets	Can stock, Cars	57	57	7	7
		Aluminum cast & forged parts	Aircraft, Rolling stock	67	67	4	2
		Aluminum extrusions	Cars, Rolling stock	34	34	-	-
		Copper sheets	Semiconductors, Terminals	38	38	2	2
	Kobelco & Materials Copper Tube, Ltd.	Copper tubes	Air conditioning	23	23	88	88
		Shinko Metal Products Co., Ltd.	Copper alloy tubes, Molds	Electrical machinery, Steelmaking equipment	176	176	29
	Shinko Aluminum Wire Co., Ltd., Kobelco & Materials Copper Tube (M) Sdn. Bhd., Kobelco & Materials Copper Tube (Thailand) Co., Ltd., Suzhou Kobe Copper Technology Co., Ltd.	Copper tubes	Air conditioning Terminals	36	36	-	-
Copper strips							
Shinko Moka Sogo Service Ltd.	Aluminum wires	Aluminum plate	Prototype materials	-	-	1	1
Other	Kobelco Research Institute, Inc.	Sputtering target materials	FPD, Optical disks, Prototype alloys	70	70	14	14
	Kobe Steel, Ltd. Iron & Steel Business Steel Powder Division	Steel powder	Sintered parts	1	1	-	-
	Shinko Kohan Kako, Ltd.	Heavy plate processing	Heavy plate processed	1	1	-	-
	Koshuha All Metal Service Co., Ltd.	Heat treatment	Heat treatment	-	-	1	1
	Kobe Steel, Ltd. Machinery Business	Machinery	Industrial machinery, Standard compressors	-	-	10	10
	Shinko Engineering Co., Ltd.	Machinery	Industrial machinery	-	-	3	3
	Kobelco Eco-Solutions Co., Ltd.	Water analysis	Water analysis	-	-	4	4
				525 ※	525	163 ※	162

※The 525 customers announced on October 26, 2017 and the 163 customers affected by the Misconduct detected after the establishment of the Independent Investigation Committee are cumulative numbers.



Growth Strategies for the Three Core Business Areas

Materials

I Initiatives for weight savings in transportation

- Overview of automotive weight savings strategy
(Please refer to Investor Meeting material released in May 2017)
http://www.kobelco.co.jp/english/ir/library/fncl_results/2017/_icsFiles/afieldfile/2017/06/20/170526_1.pdf

II Strengthening profitability in the steel business

- Consolidation of upstream operations at Kakogawa Works has been completed
- Additional measures to improve profitability are being implemented as planned

Machinery

I Initiatives in the fields of energy and infrastructure

- Promoting the smooth expansion of the Machinery Business

II Strengthening profitability in the construction machinery business

- Rebuilding of the excavator business in China has been completed for the most part
<https://www.kobelcocm-global.com/news/2018/180625/index.html>

Electric Power

Initiatives for stable profitability in the electric power supply business

- We have completed all legal procedures required to begin construction of No.3 & 4 units of the Kobe Power Plant and have commenced construction.
Overview of all (new/existing) projects
(Please refer to Investor Meeting material released in January 2017)
http://www.kobelco.co.jp/english/ir/library/fncl_results/2016/_icsFiles/afieldfile/2017/02/15/170111_e.pdf



Progress of New Power Generation Project (No. 3 & 4 Units of the Kobe Power Plant)

➤ We have completed all legal procedures required to begin construction of No.3 & 4 units of the Kobe Power Plant and have commenced construction.

➤ Timeline

2018 May : Kobelco Power Kobe No.2, Inc. was established for the purpose of supplying electricity and to arrange financing.

2018 August : Re-entered into an environmental preservation agreement with the city of Kobe.
Arranged project finance.

2018 October : Completed all legal procedures required and started construction work

Kobe Power Plant' Unit 1 and 2

Kobe Power Plant's Unit 3 and 4 (The firmer site of the blast furnace)

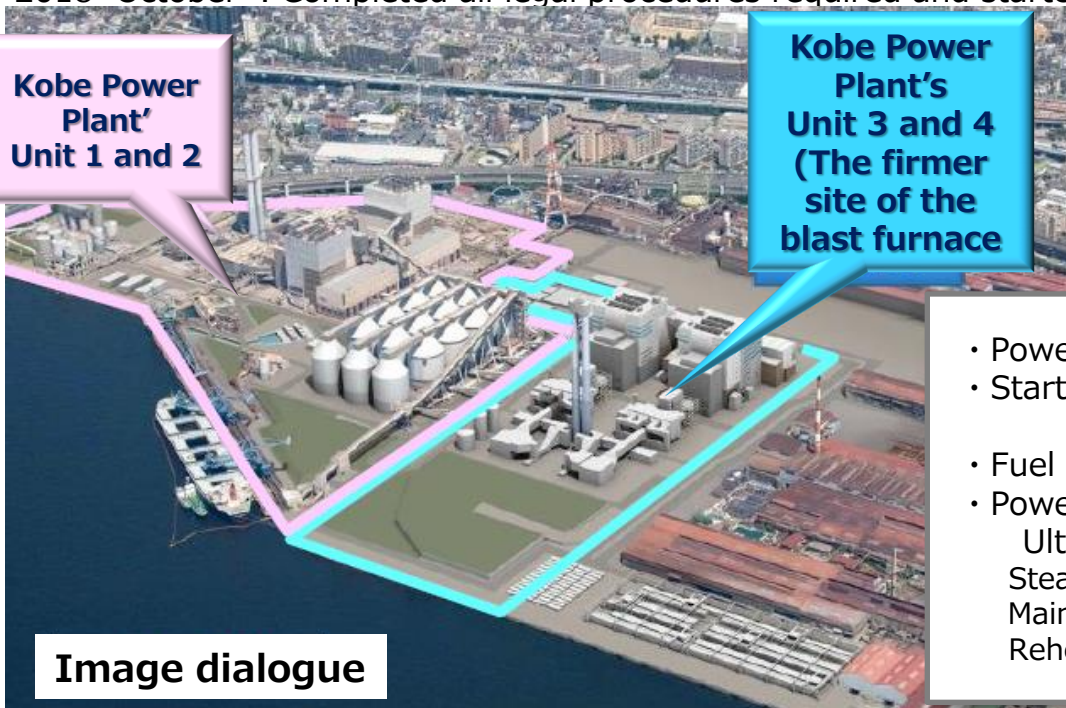


Image dialogue

- Power Output : 1.3million kW (650,000kW × 2)
- Start Operation : Unit 3 FY2021
Unit 4 FY2022
- Fuel : Coal (pulverized coal)
- Power generation method :
Ultra Super Critical Pressure Method (USC)
Steam Pressure = 25.0MPa
Main steam temperature = 600 degrees Celsius
Reheat steam temperature = 600 degrees Celsius



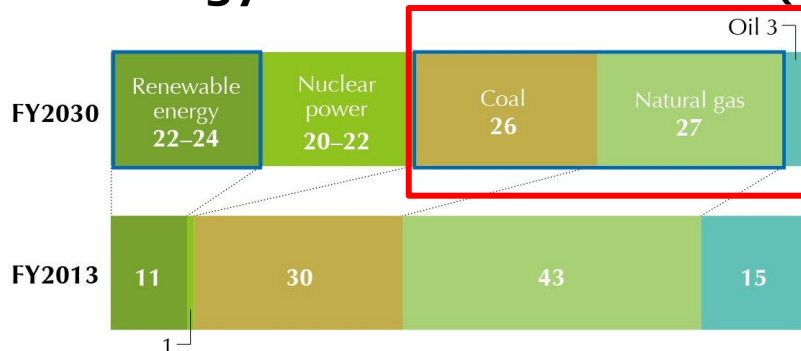
Environment Surrounding the Electric Power Business of the Kobe Steel Group

➤ Amendment of the Electricity Business Act in 1995 led to approval of the wholesale electricity supply business. After the Great East Japan Earthquake in 2011, Japan’s energy policy has changed significantly.

➤ Environment Surrounding the Electric Power Business

- ✓ After the Great East Japan Earthquake in 2011, Japan’s policy objective for a new power supply structure in 2030 is to simultaneously achieve the best mix of safety, stable supply, economic efficiency, and environmental suitability for a variety of power sources.
- ✓ In the desired power supply structure in 2030, thermal power generation is positioned as a power source to be utilized on the premise of its high efficiency. In this context, Japan requires that new power plants must have an efficiency equivalent to state-of-the-art ultra-supercritical pressure power generation (USC) in order to be constructed.
- ✓ Furthermore, the Energy Conservation Act was amended to require that the average thermal power generation efficiency of each power producer must be 44.3% or more by 2030.

➤ Targeted Energy Source Mix for 2030 (Best Mix of Power Sources)



Energy Conservation Act

Power producers must secure a power generation efficiency of 44.3% or more for thermal power generation.

* Source: Kobe Steel, based on public data from the Ministry of Economy, Trade and Industry



Social significance of electric power business of the Kobe Steel Group

➤ No.3 & 4 Units of the Kobe Power Plant will use state-of-the-art ultra-supercritical pressure power generation (USC). By complying with the Energy Conservation Act, it meets Japan’s global warming countermeasures and energy policies.

➤ **Initiatives of the Kobe Steel Group**

- ✓ We intend to construct a high-efficiency thermal power plant using state-of-the-art ultra-supercritical pressure power generation (USC) that complies with the best available technology (BAT) standards set by the government.
- ✓ We will comply with the average power generation efficiency standards stipulated in the Energy Conservation Act.

➤ **Mechanism and Features of Ultra-Supercritical Pressure (USC) Power Generation System**

- ✓ The boiler burns coal to generate high-temperature and high-pressure steam, which rotates the turbine to generate electricity. The higher the steam temperature pressure, the higher the power generation efficiency, which contributes to energy conservation and reduction of CO2 emissions. High-temperature and high-pressure generation is making progress, and Ultra-supercritical pressure power generation occurs when the steam temperature exceeds 593°C. It is possible to achieve high efficiency while reducing the environmental burden.

Power generation system	Power generation efficiency (generation end, HHV)
Subcritical pressure (Sub-C)	About 39%
Supercritical (SC)	About 41%
Ultra-supercritical pressure (USC)	About 43%

Source: Data from the Agency for Natural Resources and Energy

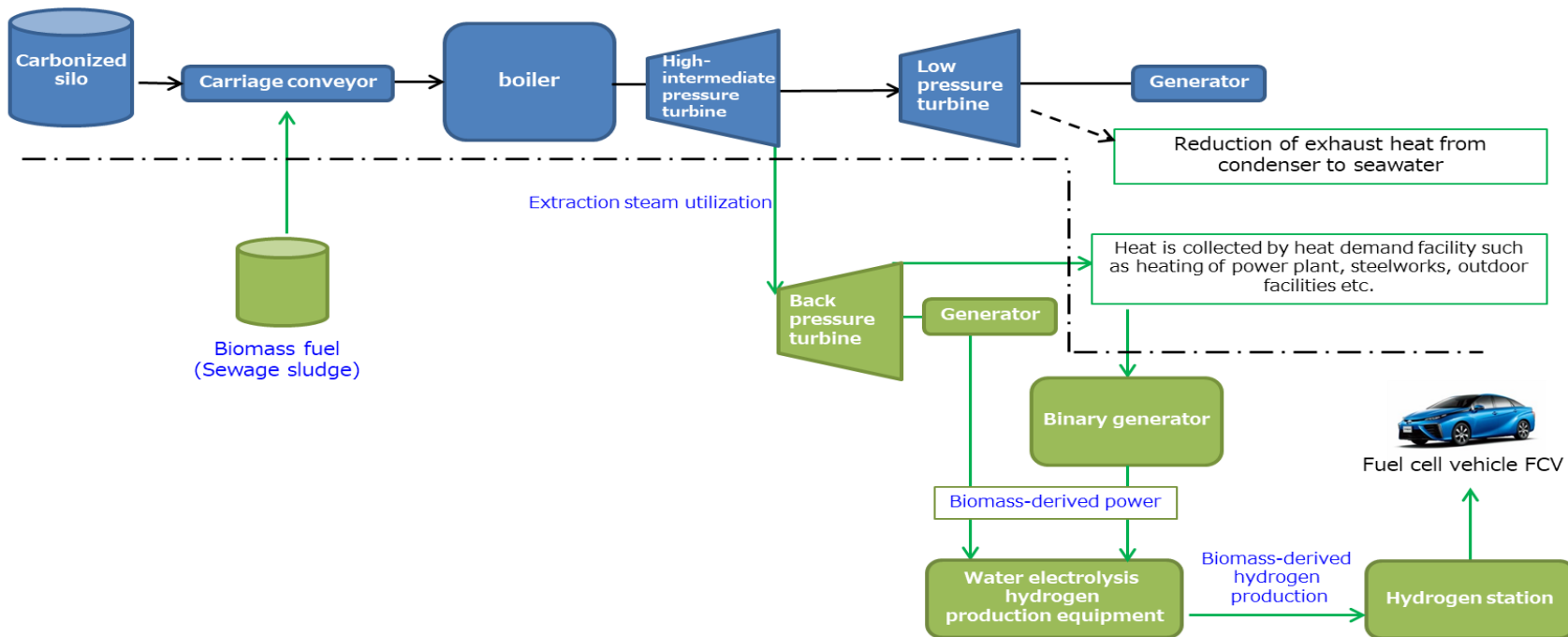
Meets Japan’s global warming countermeasures and energy policies.



Reference: Effective utilization of unused energy sources in the region (No.3 & 4 Units of the Kobe Power Plant)

➤ Using sewage sludge as part of the fuel generates power and contributes to the production of hydrogen, which can then be supplied to hydrogen stations.

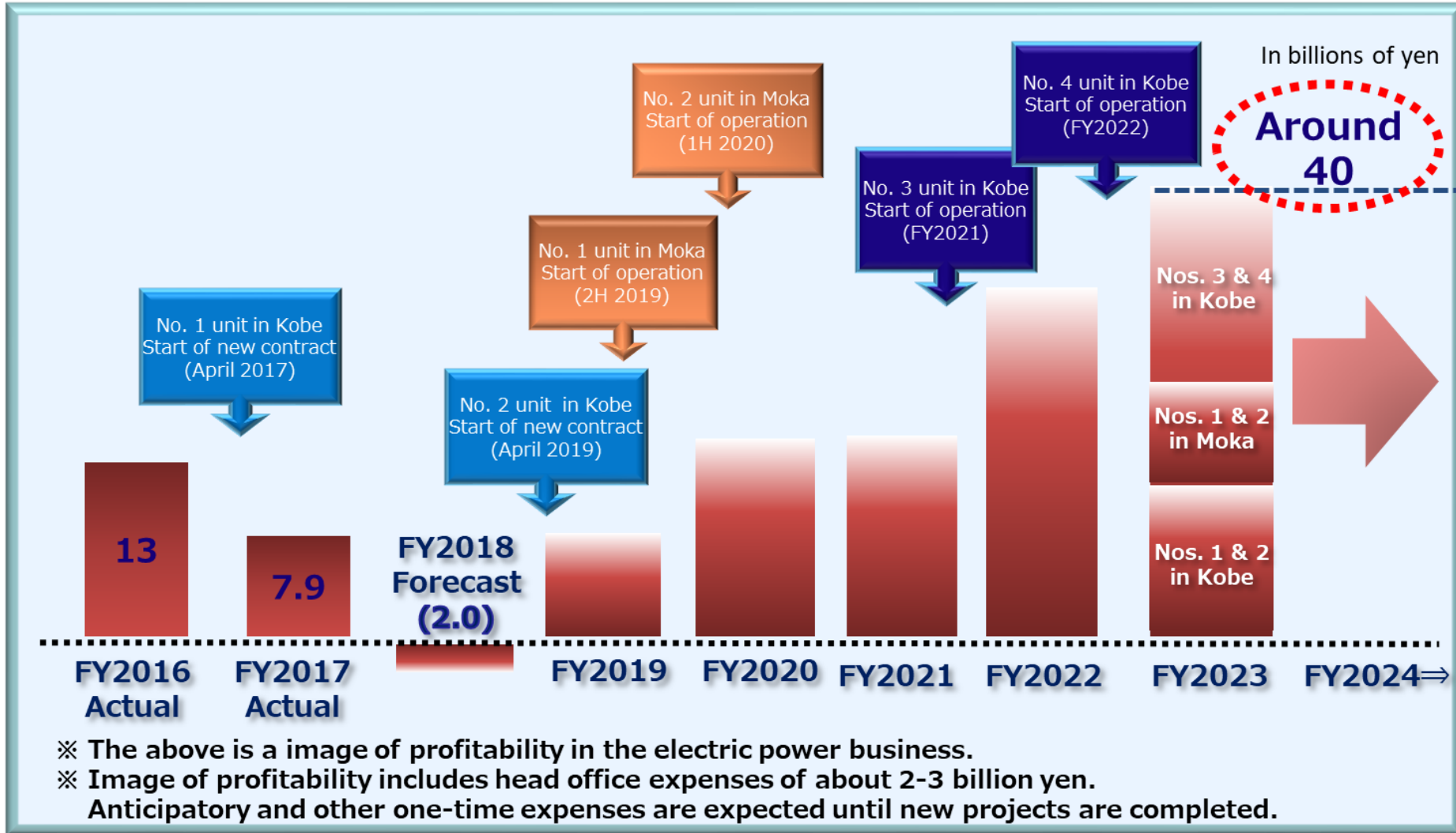
- To effectively utilize unused energy, No.3 & 4 units will utilize sewage sludge, which is a biomass generated in the region, as fuel.
(This initiative can only be undertaken with pulverized coal-fired power generation.)
- Steam generated from the combustion of biomass-derived fuel will be extracted and used for power generation.
- Biomass-derived hydrogen produced by electrolysis from electric power generation will be supplied to FCVs.
- This initiative will contribute to the future spread of FCVs, reduction of CO2 emissions in local communities, and improvement of air quality





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Reference: Image of electric power segment ordinary profit and loss transition





ECOWAY

【Materials】 Initiatives for Weight Savings in Transportation

Field	Project	Country	Description	Schedule
Automotive	Joint venture to make and sell steel wire rods (Kobelco Millcon Steel Co., LTD)	Thailand	First overseas location for wire rod production. Helps meet growing auto demand in Southeast Asia.	Sep. 2015 Production of ordinary steel wire rod began May 2017 Equipment to make special steel installed
	Joint venture to make and sell CH steel wire (Kobelco CH Wire Mexicana, S.A. de C.V.)	Mexico	Quickly supply products of outstanding quality to local auto parts makers	Jan. 2016 Production began
	Joint venture to make and sell automotive high strength steel sheet (Kobelco Angang Auto Steel Co., Ltd.)	China	Strengthens environmental response in China. Established global supply network for high strength steel in Japan, the U.S., Europe and China.	Feb. 2016 Production began
	Production and sale of aluminum sheet for automotive closure panels	China	First production base in China for a Japanese aluminum maker to make aluminum sheet for closure panels.	Apr. 2016 Production began
	Production and sale of automotive aluminum extrusions (Kobelco Aluminum Products & Extrusions Inc.)	USA	Strengthens response to stricter fuel consumption regulations in the U.S.. Establishes supply network for aluminum extrusions and fabricated products in Japan and the U.S.	Aug. 2016 Construction began Dec. 2017 Production began
	Mass producing high-productivity, hot stamping steel sheet	-	Developed a hot stamping steel sheet with outstanding productivity during press operations. The sheet was ordered and adopted for a structural body part of the Prius, which is produced by Toyota Motor Corporation.	2016 Mass production began
	Establishment of Automotive Solution Center	-	The Automotive Solution Center was newly organized in the Technical Development Group. We aim to promote rapid decision-making and strengthen original solution proposal capabilities.	Apr. 2017 Established the center
	Expansion of facilities for aluminum forged suspension products (Kobe Aluminum Automotive Products, LLC)	USA	This expansion plan is to meet the rising demand in North America for aluminum forged suspension products. Kobe Steel anticipates that automakers in the U.S. will use aluminum forged suspension products in a wider range of vehicles.	2018 Autumn Additional facilities start
	Establishment of a joint venture with Novelis Korea (Ulsan Aluminum Ltd.)	South Korea	This plan is in response to the growing demand for automotive aluminum panel materials in Asia, including Japan and China. It aims to secure stable production and supply capacity in upstream operations.	Sep. 2017 Joint venture established
	Expansion of facilities for aluminum sheet for automotive closure panels at the Moka Plant	Japan	The expansion plan is in response to the growing demand for aluminum closure panels in Asia, including Japan and China. Kobe Steel aims to build a stable supply structure for high quality aluminum sheets for closure panels.	FY2017 Construction began Jan. 2020 Production to begin
	Increase of production capacity to make hot-dipped galvanized ultra high-strength steel for automotive use in the U.S. (PRO-TEC Coating Company)	USA	This plan is in response to growing demand for automotive high-strength steel sheet in the United States. The new continuous galvanizing line will have the capability to produce high-formability, ultra high-strength steel.	Jul. 2017 Production began
	Investment in production equipment for automotive high strength steel at Kakogawa Works	Japan	This capital investment aims to meet growing demand for automotive ultra high-strength steel and the need for higher strength and higher formability. It will enable Kobe Steel to produce the same ultra high-strength steels in both Japan and the U.S.	Feb. 2021 Production to start
	Joint development of a robot system for joining dissimilar metals	-	Developing a robot system incorporating element arc spot welding (EASW), a dissimilar metals joining method devised by Kobe Steel to join ultra high-strength steel to aluminum, and FANUC's robot engineering and sensor technologies with a view to commercialization	
Expansion of facilities for aluminum extrusions products (Kobelco Aluminum Products & Extrusions Inc.)	USA	This expansion plan is in response to stricter fuel consumption regulations in the U.S and demand for aluminum extrusions and fabricated products.	Aug. 2018 Construction began Mar. 2020 Production to begin	



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【Machinery】 Initiatives in the Fields of Energy and Infrastructure

Field	Project	Country	Description	Schedule
Compressors	Sales begin for new oil-free standard air compressors	—	World's highest class of energy efficiency; low-noise operation	Oct. 2016 Sales began
	HyAC mini-A all-in-one, compact compressor package for hydrogen refueling stations in the U.S.	USA	We have started marketing the HyAC mini-A, an all-in-one, compact compressor package for stationary hydrogen refueling stations designed for use in the U. S.. It consists of a high-pressure hydrogen compressor and a refrigerator sold together with a high-pressure storage tank unit and a dispenser as a set. We are the first in Japan to sell hydrogen compressors for hydrogen refueling stations overseas.	Feb. 2017 Sales began
	Binary power generation system for Lake Toya Hot Spring in Hokkaido	Japan	Our binary power generation system, a high-efficiency and compact package, is used in a project for geothermal energy utilization in Toyako-cho in Hokkaido.	Mar. 2017 Order received
	Large-capacity compressor test facility opens	Japan	One of the largest in the world, this test facility is capable of conducting performance tests on nonstandard compressors with variable-speed motors of 40 MW. It enables Kobe Steel to satisfy conditions to enter the large-capacity compressor market. We are focusing on the Asian market, where Kobe Steel has an edge.	Apr. 2017 Facility opened
	Establishment of a compressor service company in the Philippines (Kobelco Machinery Philippines Inc.)	Philippines	Kobe Steel established a company in the Philippines to dispatch supervisors and provide engineering services for its nonstandard compressor business to expand its services in the region. It aims to further grow its global non-standard compressor business and set down roots in areas of demand.	Feb 2017 Established Apr. 2017 Sales began
Industrial Machinery	Acquisition of Swedish isostatic press manufacturer Quintus Technologies	Sweden	Kobe Steel acquired Swedish company Quintus Technologies AB, the world leader in isostatic presses, which are widely applicable in the manufacture of high-performance products, such as aircraft parts, power generation turbine and semiconductor materials. It aims to increase the profitability of Industrial Machinery Division.	Apr. 2017 Acquisition completed
Construction Machinery	Sales begin of ultra-large crawler cranes in Japan (lifting capacity of 1,250t)	—	One of Japan's largest crawler cranes	May 2016 Sales began
Engineering	Operation of energy-recovery waste treatment plant	Japan	Utilizes fluidized bed gasification and combustion furnace. Next-generation incineration furnace contributes to a more compact facility, maximizes power generation and reduces environmental burden.	Jun. 2016 Order received 2016-2019 Construction of facility 2019-2039 Facility in operation
	Received order to construction and operate a wide-area waste treatment plant	Japan	To handle a wide variety of waste, a stoker-type incineration furnace will be used for safe, stable incineration. Low excess air combustion and high-efficiency power generation contribute to lowering the environmental burden.	Dec. 2016 Order received 2016-2022 Construction of facility 2022-2042 Facility in operation



ECOWAY

【Electric Power】 Initiatives for Stable Profitability in the Electric Power Supply Business

Field	Project	Country	Description	Schedule
Electric Power	Nos. 1 & 2 units in Kobe (Kobelco Power Kobe, Inc.)	Japan	Pulverized coal-fired, supercritical pressure power generation equipment, started from 2002. New contracts were formed to replace current contracts as they expire. Capacity: 1.4 mil. kW (700,000 kW × 2)	Apr. 2002 No. 1 unit starts up Apr. 2004 No. 2 unit starts up [Start of new contracts] No.1 unit: from Apr. 2017 No.2 unit: from Apr. 2019
	Nos. 1 & 2 units in Moka (Kobelco Power Moka, Inc.)	Japan	Japan's first full-scale inland power plant. Will have one of Japan's highest levels of generation efficiency. Method is gas turbine combined cycle, using city gas as fuel. Capacity: 1.248 mil. kW (624,000 kW X 2)	Jun. 2016 Construction began 2H 2019 No. 1 Unit starts up 1H 2020 No. 2 Unit starts up
	Nos. 3 & 4 units in Kobe (Kobelco Power Kobe No.2, Inc.)	Japan	We intend to construct a high-efficiency thermal power plant using state-of-the-art ultra-supercritical pressure power generation (USC) that complies with the best available technology (BAT) standards set by the government. We will comply with the average power generation efficiency standards stipulated in the Energy Conservation Act. Capacity: 1.3 mil. kW (650,000 kW x 2)	Oct. 2018 Construction began FY2021 No. 3 unit to start up FY2022 No. 4 unit to start up



Core Values of KOBELCO

- 1. We provide technologies, products and services that win the trust and confidence of our customers we serve and the society in which we live.**
- 2. We value each employee and support his and her growth on an individual basis, while creating a cooperative and harmonious environment.**
- 3. Through continuous and innovative changes, we create new values for the society of which we are a member.**

Six Pledges of KOBELCO Men and Women

- 1. Heightened Sense of Ethics and Professionalism**
- 2. Contribution to the Society by Providing Superior Products and Services**

Quality Charter

Guided by our "Quality Charter," we provide safe, sound, and innovative products and services to our customers, and thereby ensure customer satisfaction and contribute to the advancement of the society.

- 3. Establishing a Comfortable but Challenging Work Environment**
- 4. Living in Harmony with Local Community**
- 5. Contribution to a Sustainable Environment**
- 6. Respect for Each Stakeholder**

