



TOSHIBA

TOSHIBA IR Day 2019

Energy Systems & Solutions

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Toshiba Energy Systems & Solutions Corporation

November 14th, 2019

Forward-looking Statements

- This presentation contains forward-looking statements concerning future plans, strategies, and the performance of Toshiba Group.
- These statements are not historical facts; rather, they are based on assumptions and judgments formed by the management of Toshiba Group in light of currently available information. They include items that have not been finally decided at this point and future plans that are yet to be confirmed or that require further consideration.
- Since Toshiba Group promotes business in various market environments in many countries and regions, its activities are subject to a number of risks and uncertainties that are, without limitation, related to economic conditions, worldwide mega-competition in the electronics business, customer demand, foreign currency exchange rates, tax rules, regulations, geopolitical risk, natural disasters and other factors. Toshiba therefore wishes to caution readers that actual results might differ from expectations. Please refer to the annual securities report (*Yuukashoken houkokusho*) for FY2018 and the quarterly securities report (*shihanki houkokusho*) for the second quarter of FY2019 (both issued in Japanese only) for detailed information on Toshiba Group's business risk.
- Toshiba's fiscal year (FY) runs from April 1 to March 31. All figures are consolidated totals for 12 months, unless otherwise stated.
- Results in segments have been reclassified to reflect the current organizational structure, unless otherwise stated.

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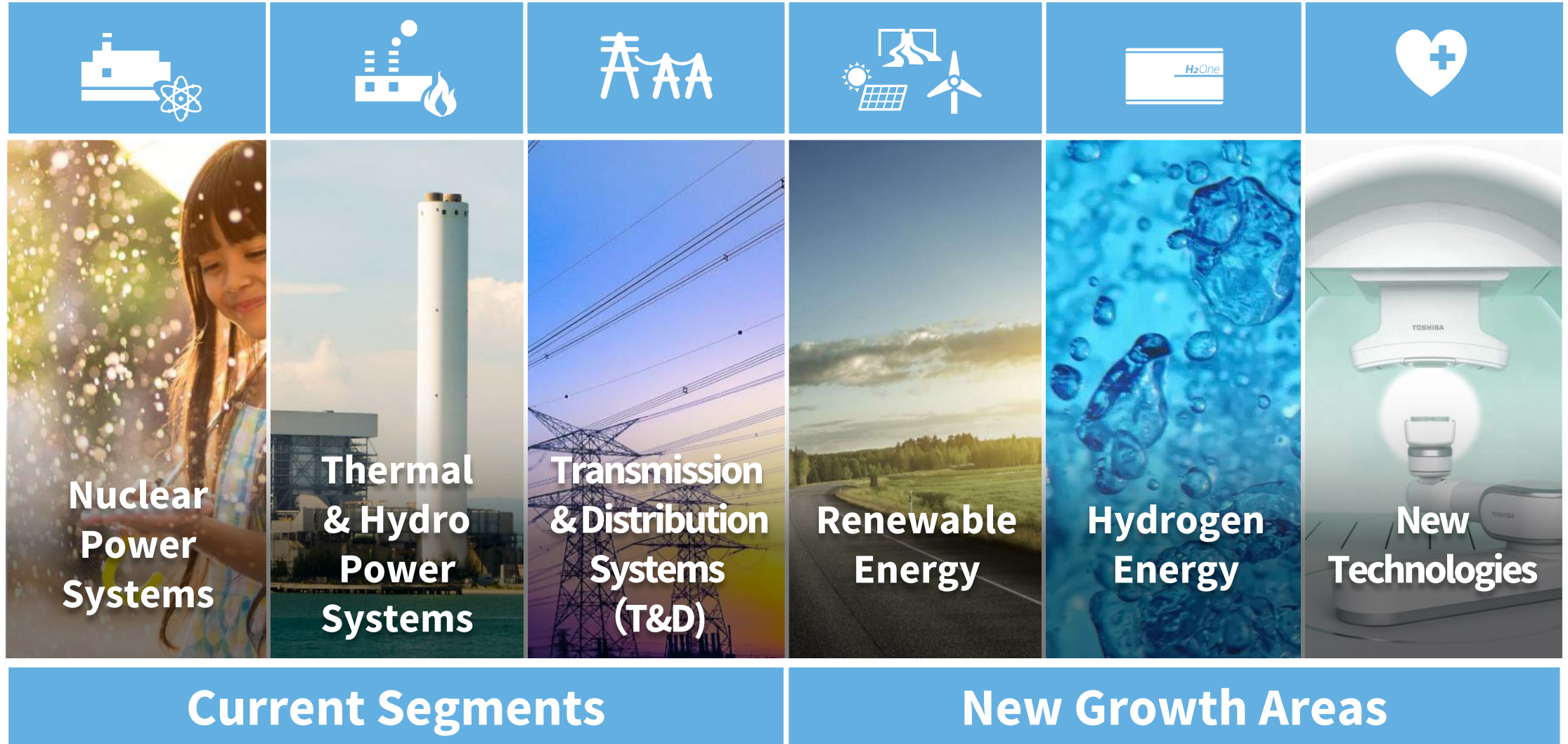
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01

Vision and Policy



Business Segments and Growth Areas



Vision of Energy Systems & Solutions

**We turn on the promise of a new day
by designing the future of energy**

Three Pillars

Smart

Refining technologies that will shape tomorrow and bring major changes to society.

Sustainable

Helping to broaden lifestyle possibilities (for people in different regions), while respecting the environment.

Profitable

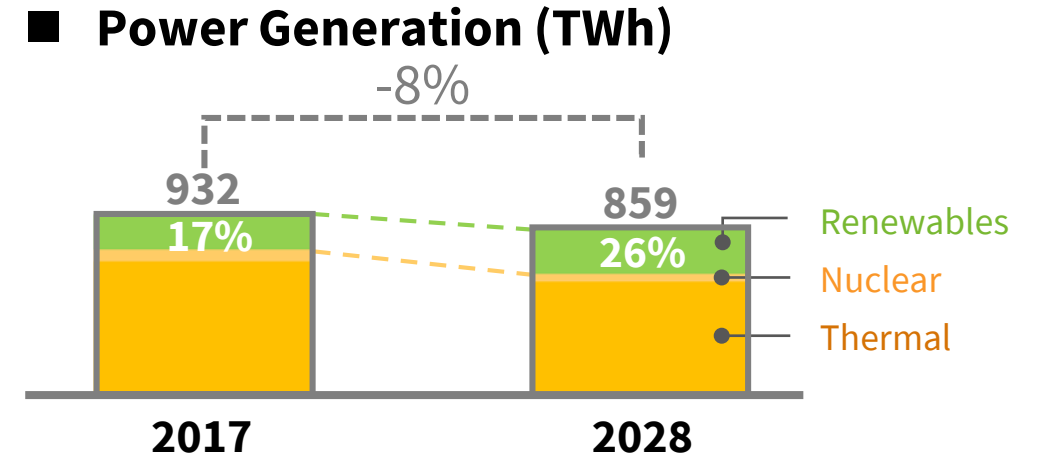
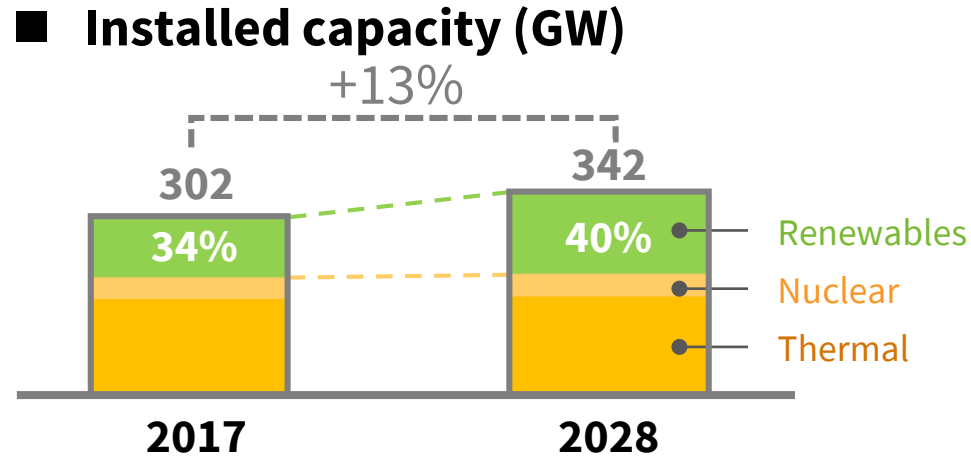
Working with our stakeholders to maximize value and bring more benefits to society as a whole.



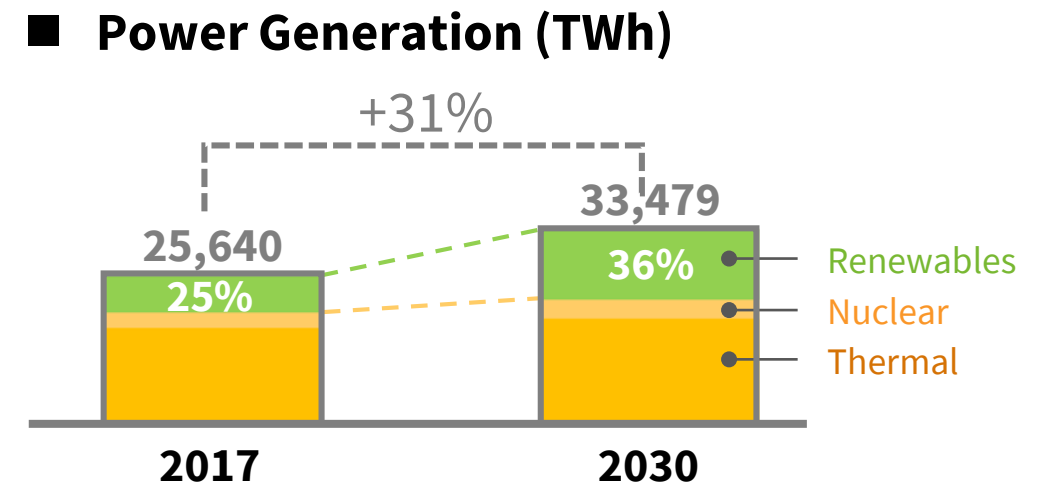
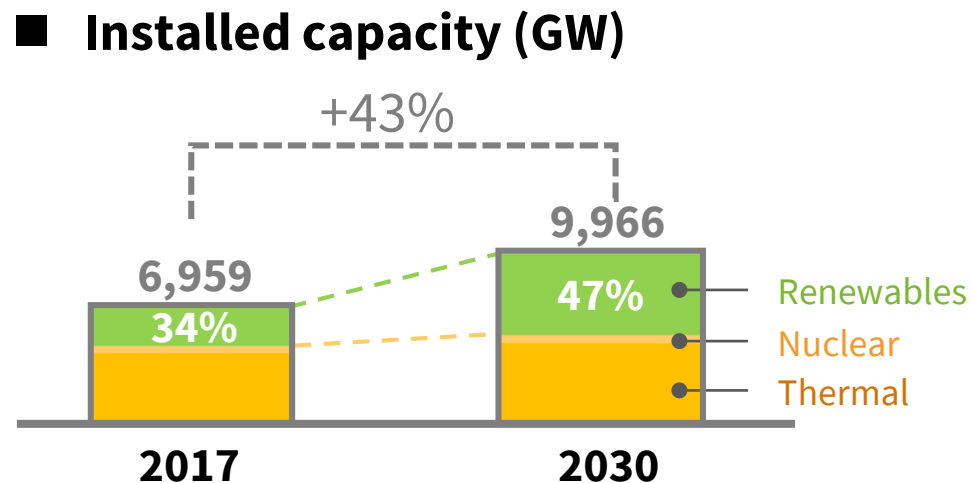
Market Trend: Energy Market in Transition

Nuclear and thermal will remain constant. Renewables will increase. T&D and energy management will grow as a key business.

Japan



World



Energy Systems & Solutions Business Policy

Increase profitability by strengthening competitiveness.

Grow renewable business and foster new technologies for the future.

- **Ensure stable earnings in current segments and invest resources in new growth areas.**
- **Continue R&D of new technologies to create the future of energy.**

Strengthen Competitiveness

Current Segments

Sustainable and Profitable

Invest in Future Business

New Growth Areas

Smart

02

Financials

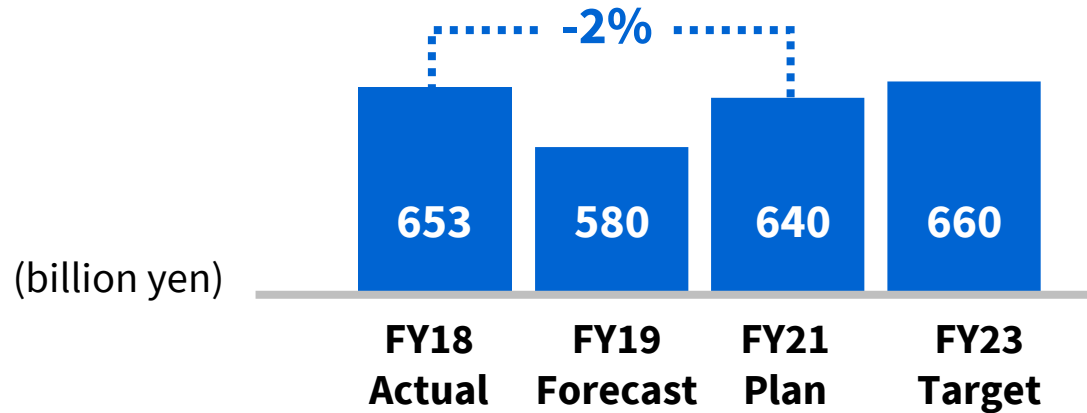
- Profitable -

- Working with our stakeholders to maximize value and bring more benefits to society as a whole.

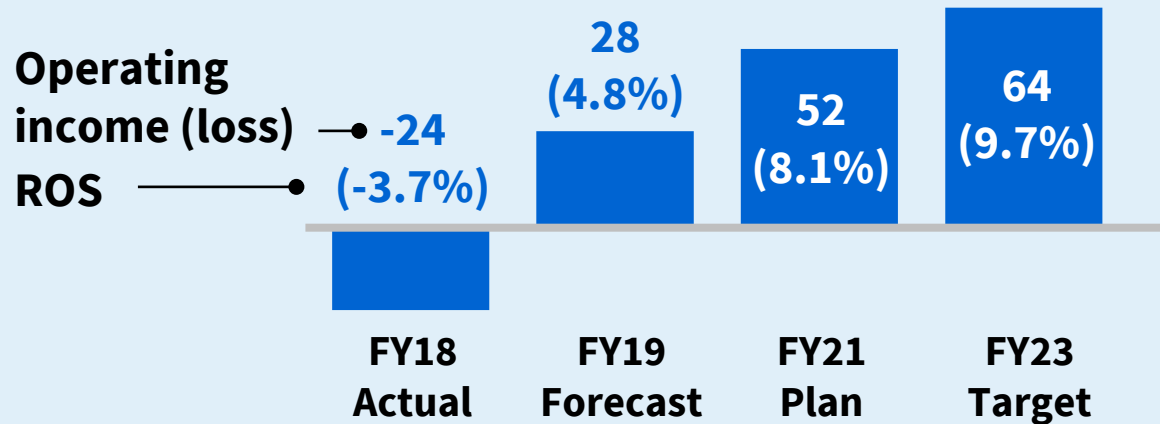


Next Plan Financials

Stable revenues. Increase profitability in sustainable segments and develop new growth areas.



FY21 Net sales
640 billion yen



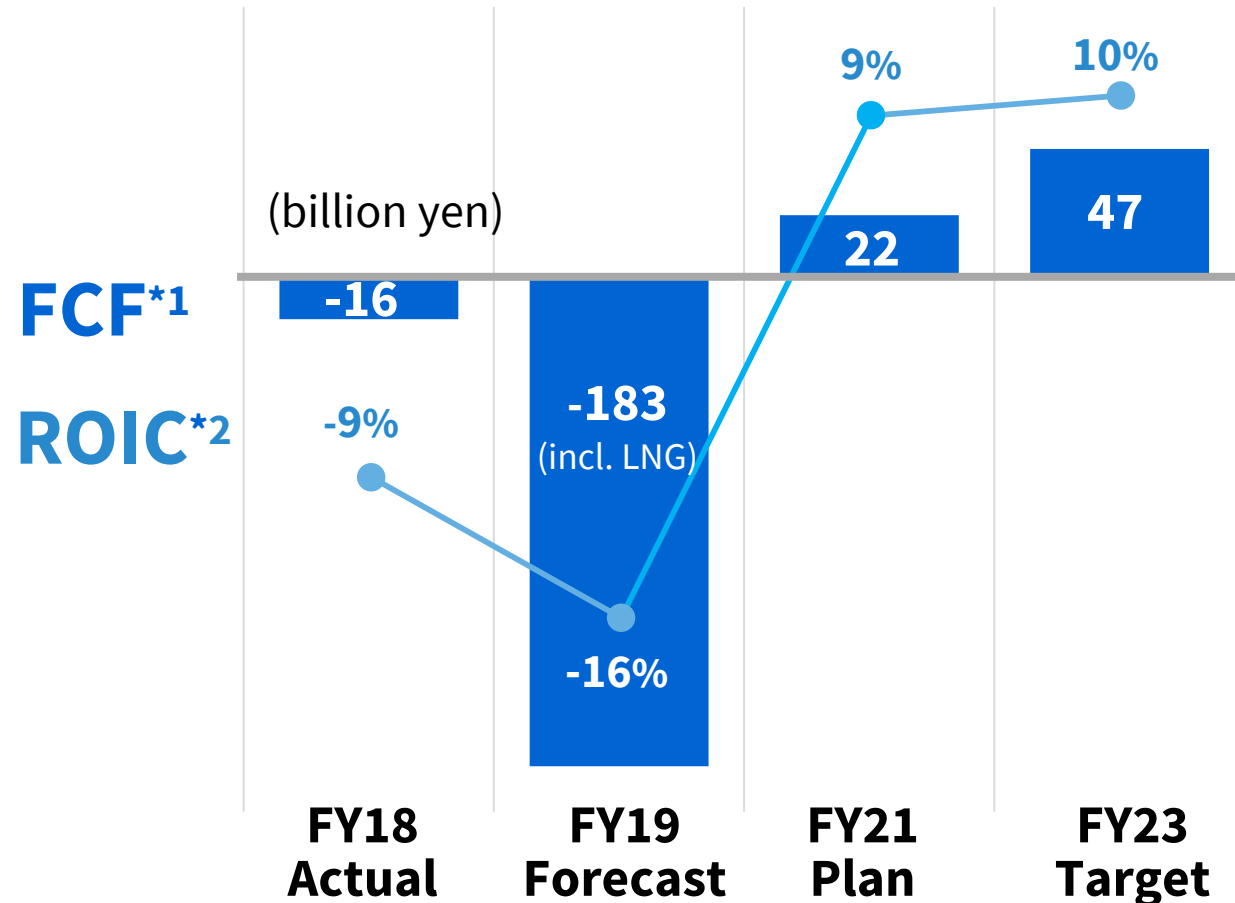
FY21 Operating income (loss)
52 billion yen

ROS
8.1 %

	FY18 Actual	FY19 Forecast	FY21 Plan	FY23 Target
EBITDA	-15	38	64	78

Next Plan Financials

Consider both earnings and investment efficiency.
Increase free cash flow and return on invested capital.



FY21
Free Cash Flow

22 billion yen

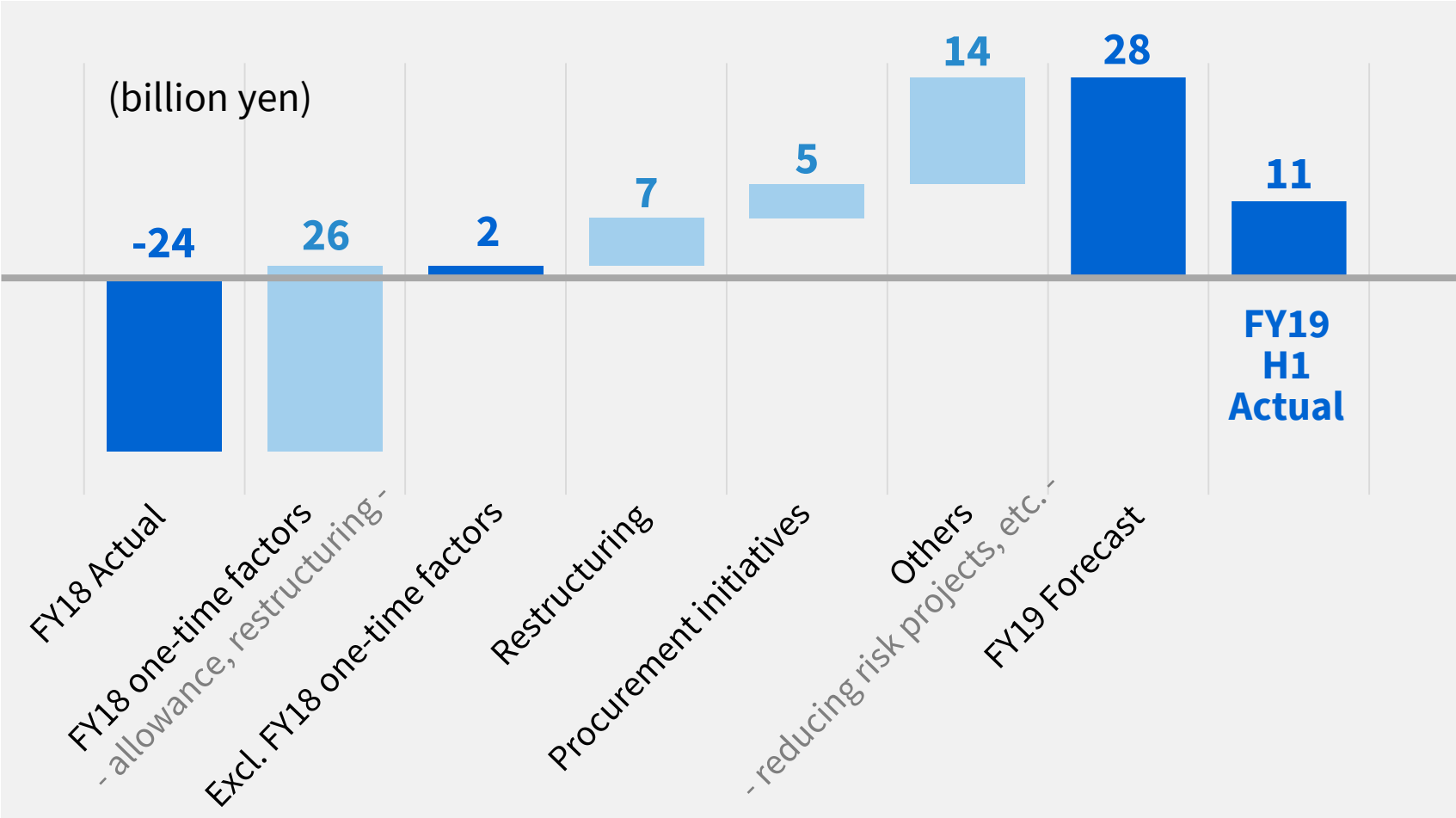
ROIC

9 %

*1 FCF: Free Cash Flow *2 ROIC: Return on Invested Capital

Operating Income - FY18 to FY19

**FY19 forecast going as planned in the Next Plan.
 Cost structure improved by restructuring. Reducing risk projects.**



FY19 Forecast
28 billion yen

FY19 H1 Actual
11 billion yen

Order Backlog - FY18 to FY19

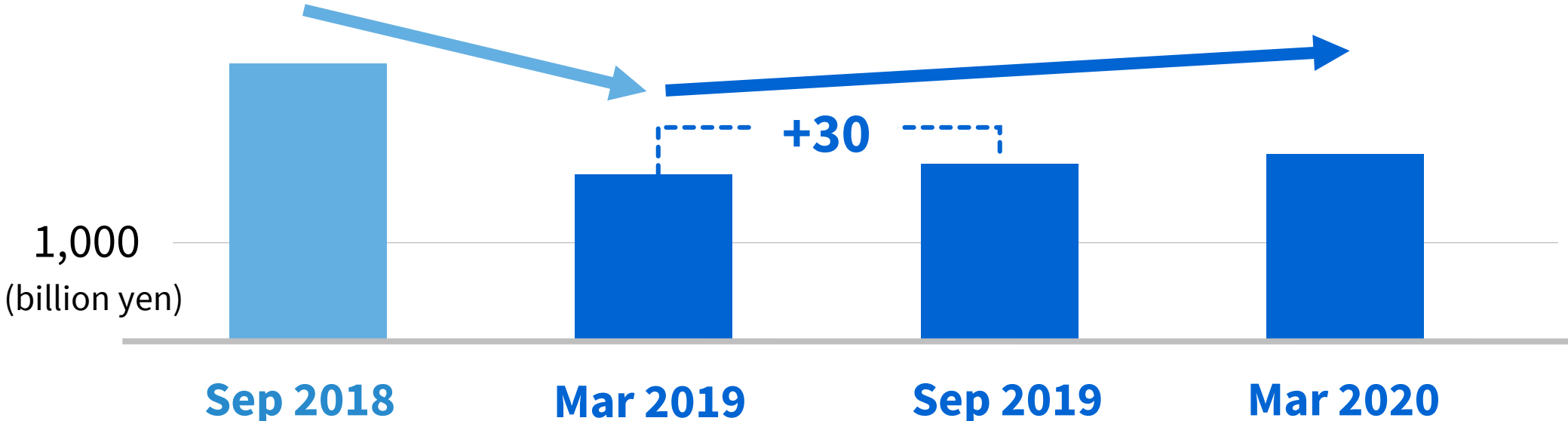
Order backlog is increasing.

FY18

- Nuclear: Withdrawal from overseas projects
- Thermal: Due to percentage of completion in new-construction projects and reduced large-scale construction projects

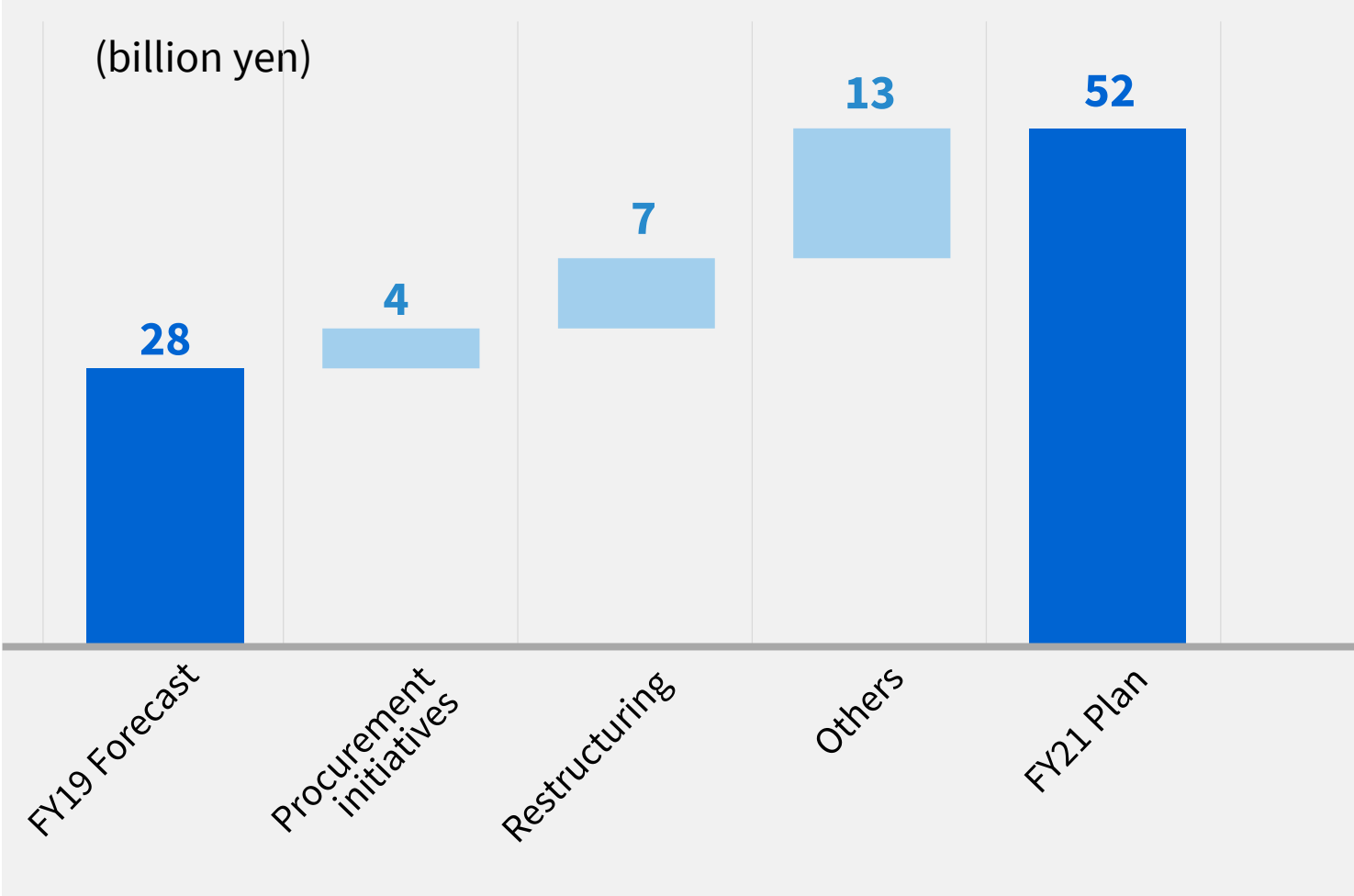
FY19 H1

- Goi Thermal-Power Station replacement work
- EPC Contract for Van Phong 1 Coal-Fired Power Plant in Vietnam
- Retrofit steam turbines and generators for major thermal power plant upgrade project in Australia



Operating Income - FY19 to FY21

Promote measures to improve cost structure and ensure profit.
Reducing risk projects.



FY21 Plan
52 billion yen

Breakdown - Others 13B

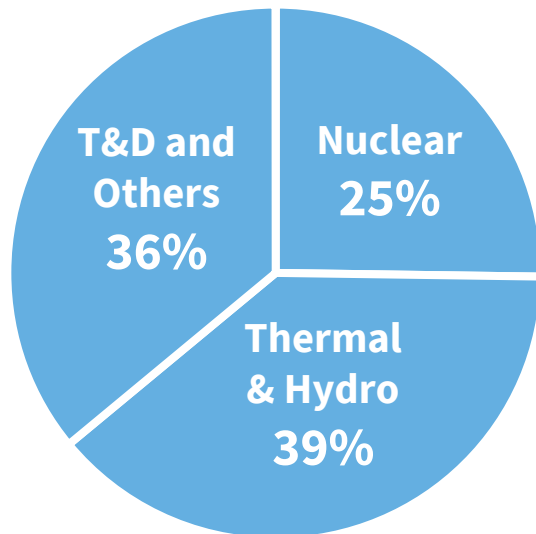
- Risk projects decreasing: 5B** Mostly completed by FY20
- Volume mix, etc.: 8B** Strengthen services business

Segments Financials

Energy Systems & Solutions continues operational restructuring.
All segments focus on profitability.

Company	FY18 Actual	FY19 Forecast	FY21 Plan
Net sales	653	580	640
Op. Income	-24	28	52
EBITDA	-15	38	64

FY19 Net Sales



Nuclear	FY18 Actual	FY19 Forecast	FY21 Plan
Net sales	169	151	180
Op. Income	16	17	17
EBITDA	17	19	19

(billion yen)

Continue stable earnings

Thermal & Hydro	FY18 Actual	FY19 Forecast	FY21 Plan
Net sales	280	232	230
Op. Income	-12	1	19
EBITDA	-6	7	25

Pursue profitability and manage risk

T&D and Others	FY18 Actual	FY19 Forecast	FY21 Plan
Net sales	213	216	240
Op. Income	-12	13	18
EBITDA	-10	15	21

Pursue profitability and manage risk

03

Growth Initiatives

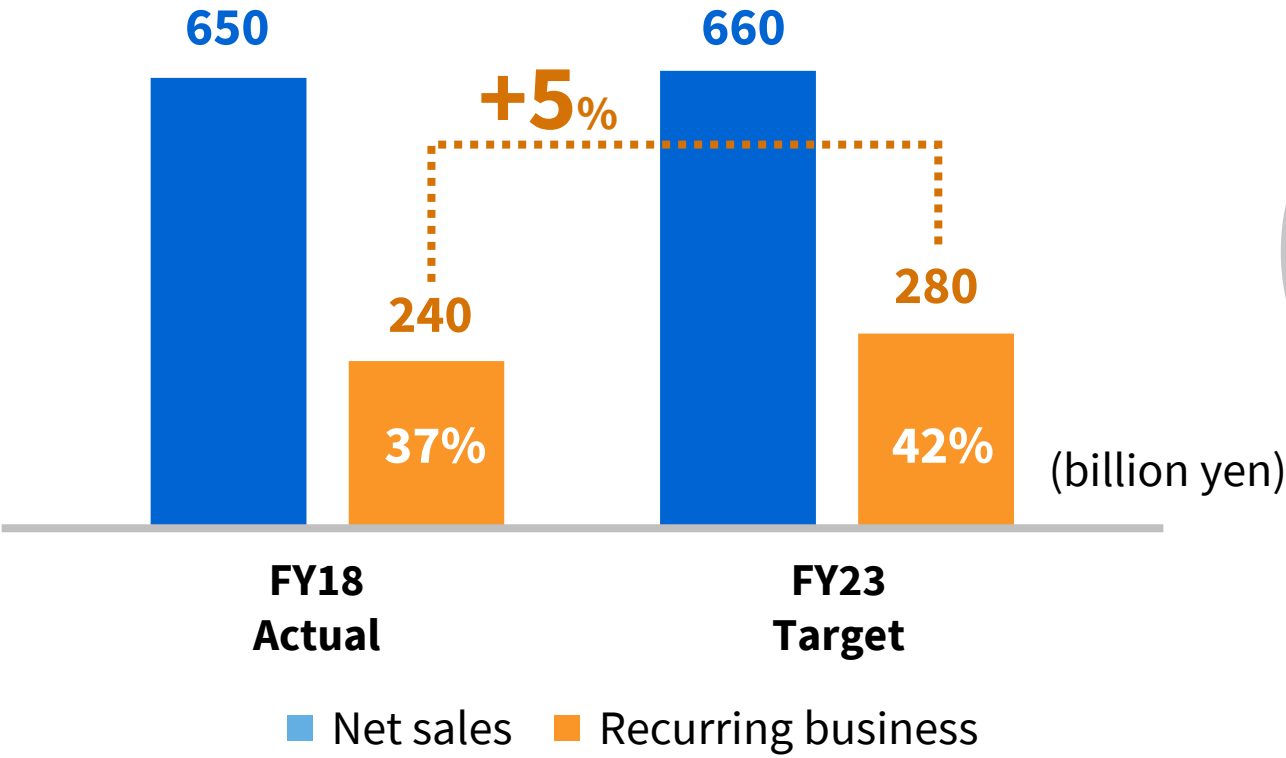
– Smart and Profitable –

- Refining technologies that will shape tomorrow and bring major changes to society.
- Working with our stakeholders to maximize value and bring more benefits to society as a whole.

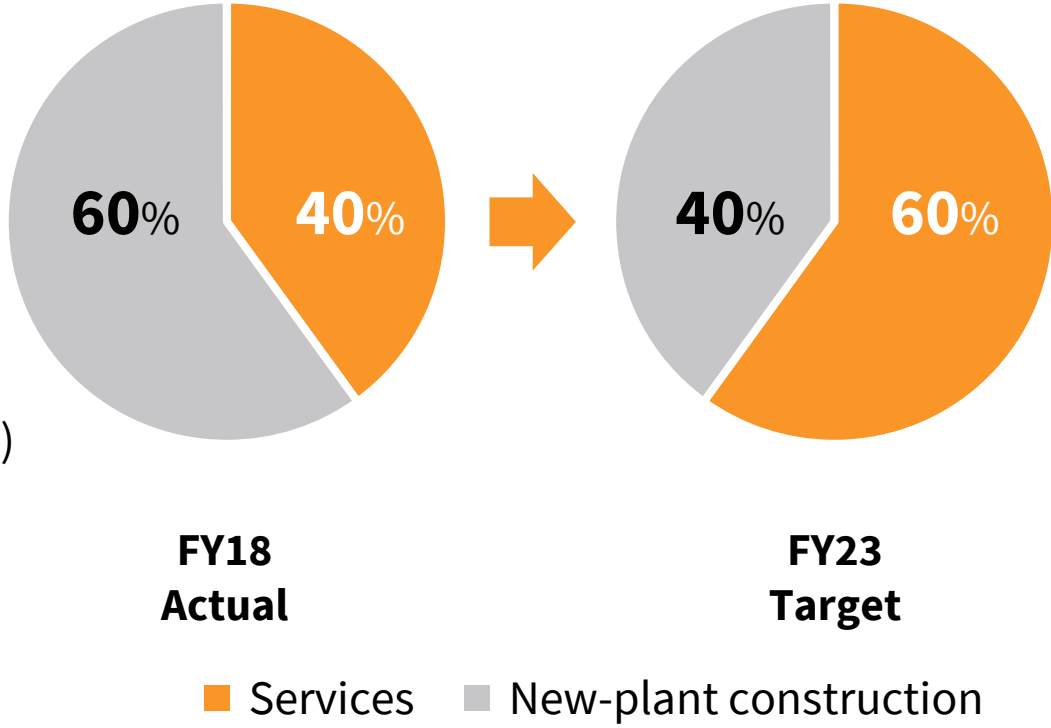
Growth Initiatives: Increase Recurring Business

Building a services and solutions business in response to dynamic changes in energy market.

Energy Systems & Solutions Ratio of recurring business



Thermal power Ratio of new-plant construction and services*



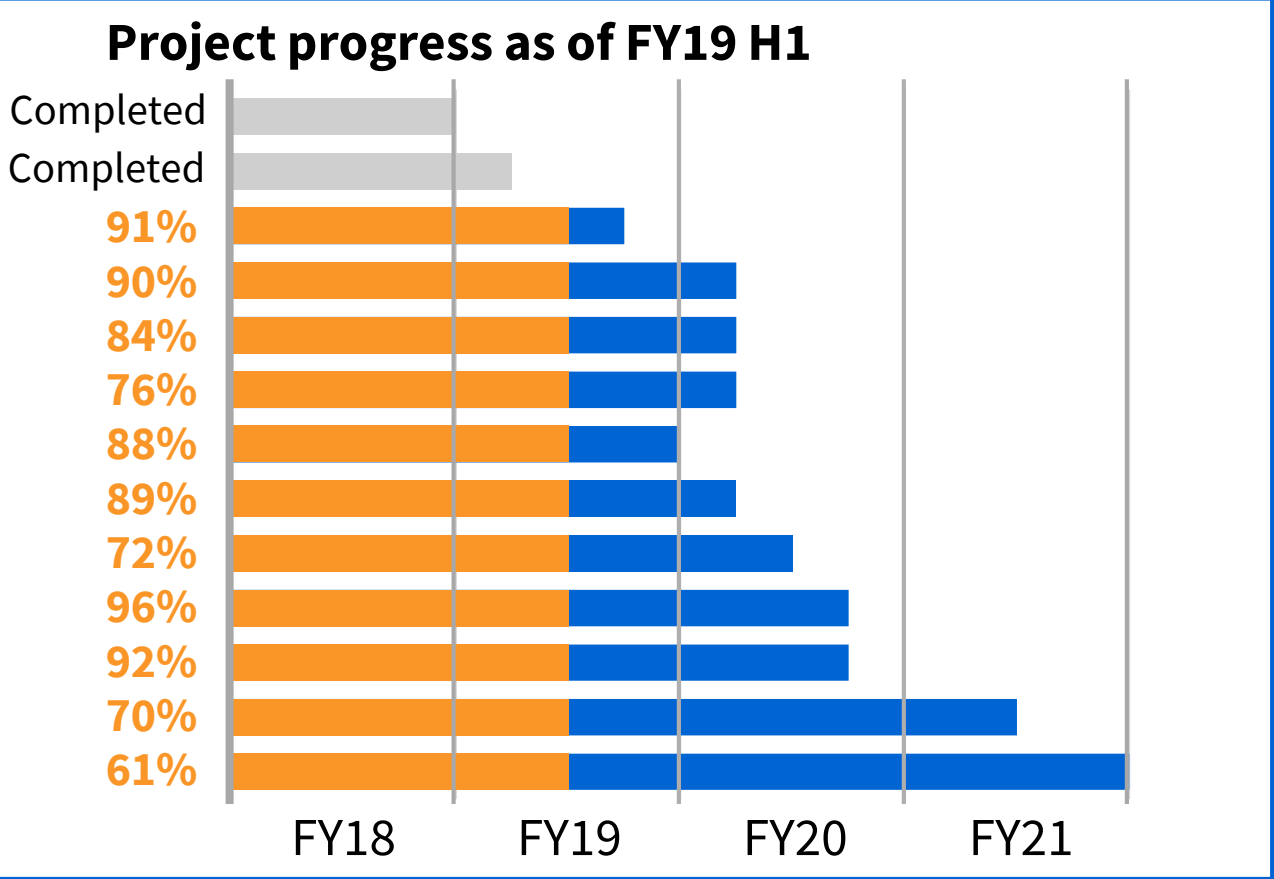
* Excluding hydro power system and others © 2019 Toshiba Energy Systems & Solutions Corporation 17

Growth Initiatives: Project Progress and Risk Mgmt.

Fewer risk projects in FY20.

Executing risk management with new processes and organizations.

Decreasing potential risk



Strengthening risk management

Toshiba Headquarters

- Review all big projects when bidding, as part of approval process

Energy Systems & Solutions

- Established risk-management organization to review projects when bidding as part of approval process
- Established risk management organization in all business units
- Monthly reviews of project risk, progress and profit

Objectives of the Privatization of Listed Subsidiary

➤ Toshiba Plant Systems & Services Corporation

Take appropriate initiatives in response to changes in energy market.

Aim to improve enterprise value of both companies.

Enhance cooperation on sales, technology, quality, and production.

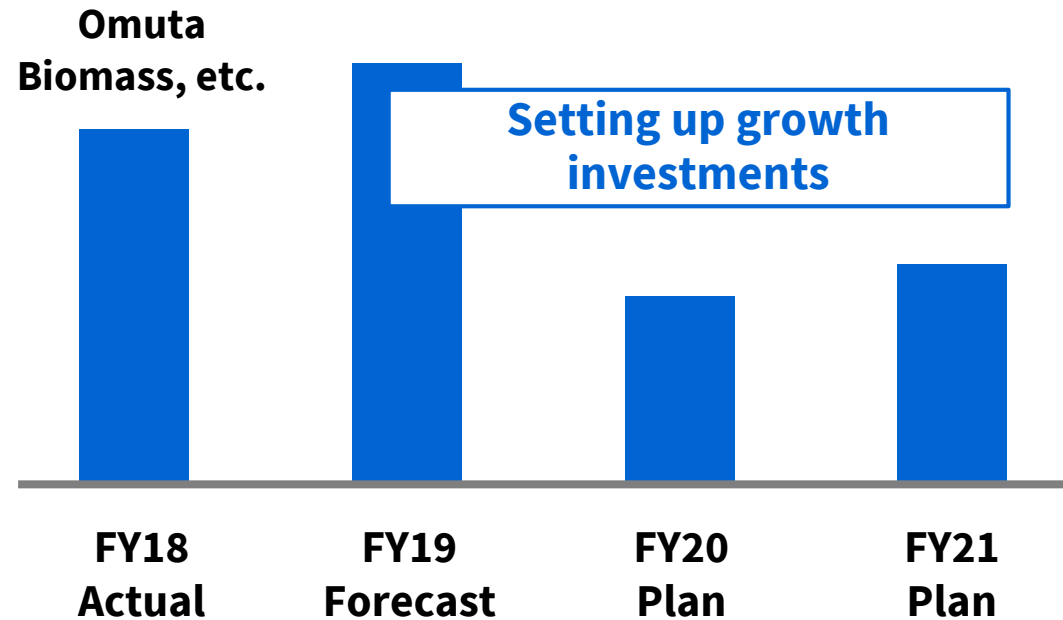
- Expand services business.
- Improve profitability by group-wide operations, including risk management, of the power generation system business.

Growth Initiatives: CapEx, Strategic Investments, R&D

Investments in growth: 140B yen. Respect ESG*.

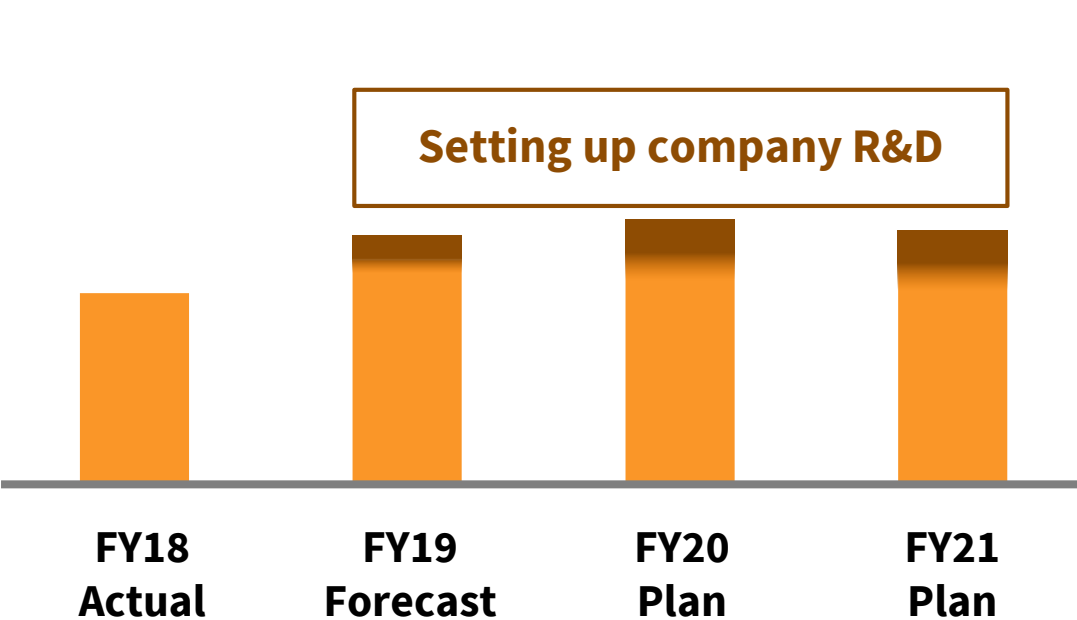
■ Capital Expenditure, Strategic Investments

■ FY19 to FY21 total: approx. **75** billion yen



■ R&D Expense

■ FY19 to FY21 total: approx. **65** billion yen



*ESG: Environmental Social Governance

Growth Initiatives: Strategies

Driving growth through clean power business.

PV : Deliver EPC with fables model in industrial market. Ensure stable earnings.

Biomass : A pillar of renewable power business. Investment planned in Next Plan.

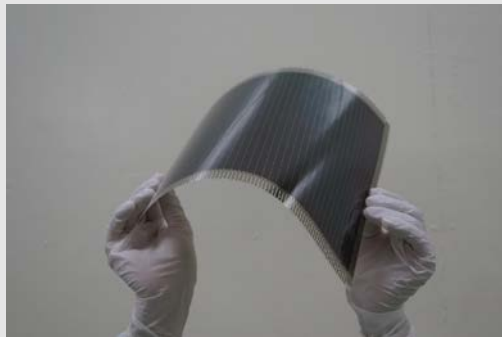
Wind Power : As a follower, develop feasible business with differentiation.

VPP : Anticipate mid-term business needs. Develop business model to capture them.

Supercritical CO₂ Realize both power generation and CO₂ capture in the cycle system.

Turbine: Aim to be first in world* to achieve practical use of equipment.

*direct-fired based



**Film-based Photovoltaic
Module**



**Mikawa Biomass
Power Plant**



Photo: Courtesy of NET Power and McDermott

**Supercritical CO₂ Cycle
Demonstration Plant**

Growth Initiatives: Designing the Future

Respond to the changing market environment,
“We turn on the promise of a new day by designing the future of energy.”

Significant environment changes in electricity

De-population

De-carbonization

Decentralization

Deregulation

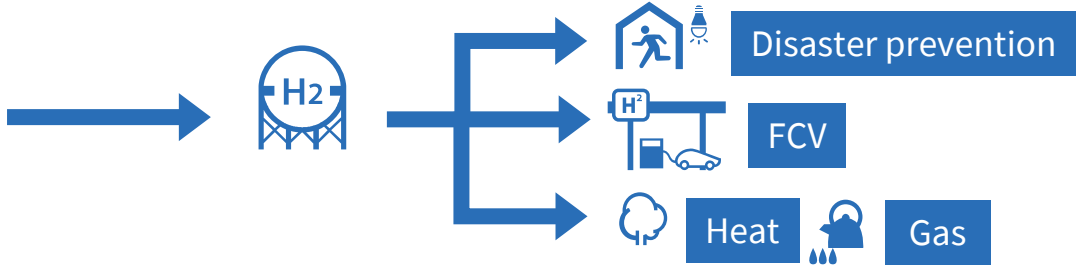
Digitization

Acceleration of electrification

Diversified use of electricity

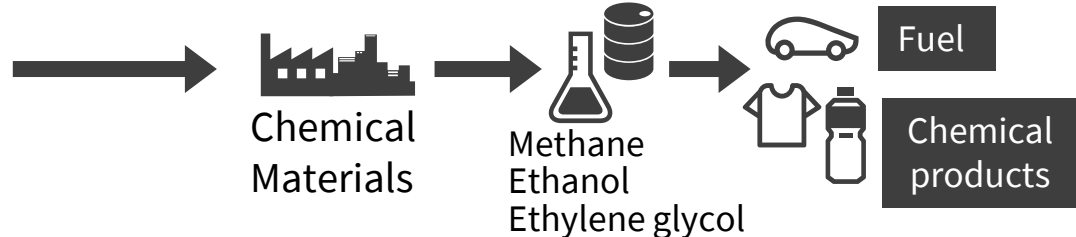
Power to Gas (PtoG)

Electric power to hydrogen power



Power to Chemicals (PtoC)

Electric power to chemicals



04

SDGs

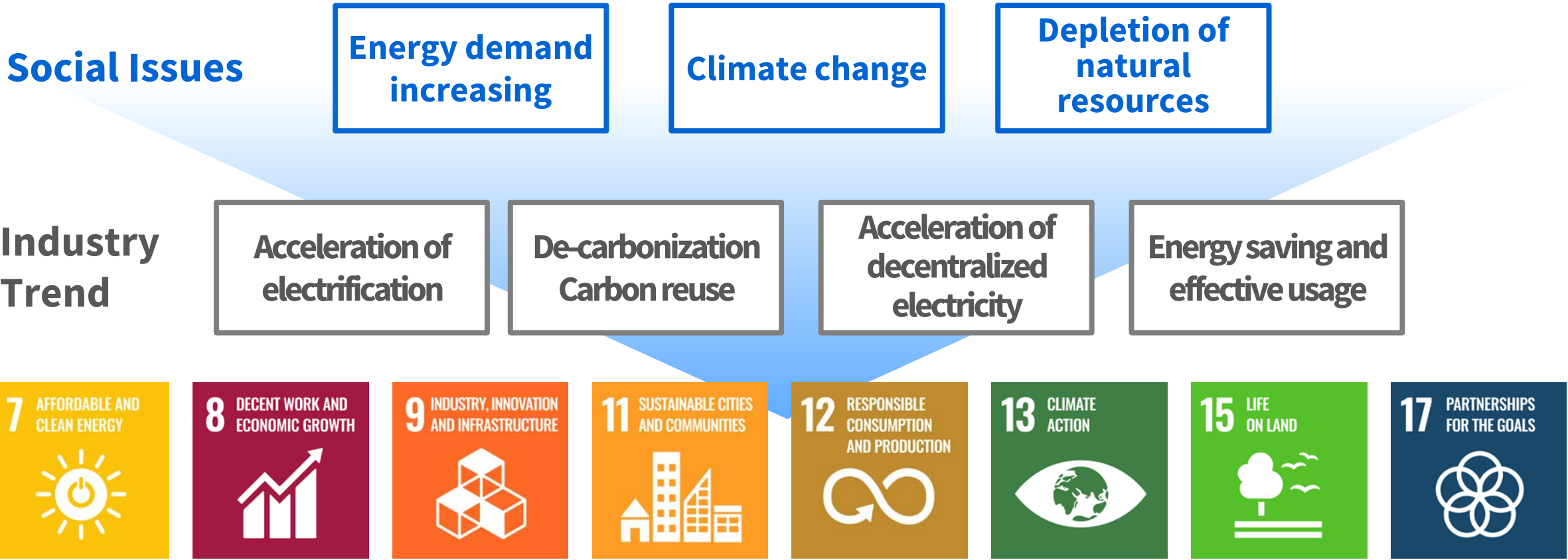
– Sustainable –

- Helping to broaden lifestyle possibilities (for people in different regions), while respecting the environment.



SDGs in Energy Systems & Solutions

Resolving social issues in energy contributes to securing the SDGs.



Activities related to SDGs

Both growth initiatives and sustainable activities contribute to a sustainable future.

INCREASING POSITIVE IMPACTS on SDGs



Stable supply of clean energy

Perovskite Photovoltaic Module
Tandem Solar Cell

Equipment for Renewable Energy
Hydrogen Energy System

Substation Operation Training Simulator

Development

Logistics

Manufacturing

Sales

Product Use

Product End Life



Countermeasures against GHG emissions from power generation

Supercritical CO2 Turbine

CO2 Capture Facility



Countermeasures against use of conflict minerals, protecting environment in facility

Green Procurement Guidelines

Maintain Biotope

Rapeseed Oil-Immersed Transformer

Decommissioning of Nuclear Power Plants

MINIMIZING NEGATIVE IMPACTS on SDGs



**Committed to People,
Committed to the Future.**

TOSHIBA