



RENOVA commits to reduce
10 million tons of CO2 by 2030

Briefing on Financial Results for the First Half of the Fiscal Year Ended March 2019



January 10, 2019

Scaffolding for seabed survey being installed off the coast of Yurihonjo, Akita Prefecture

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As a general rule and unless indicated otherwise, consolidated figures are used for the monetary amounts listed in this document. As amounts less than one million yen are rounded down, totals in each column may not match.

In this document, (quarterly) profit is listed as (quarterly) profit attributable to owners of parent.

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1. Overview of Financial Results for the First Half
of the Fiscal Year Ending March 2019

Key Highlights of Financial Results for the First Half of the Fiscal Year Ending March 2019

1 Steady progress in net sales and each profit line item

2 Final investment decision for the Tokushima Biomass Power Plant expected shortly

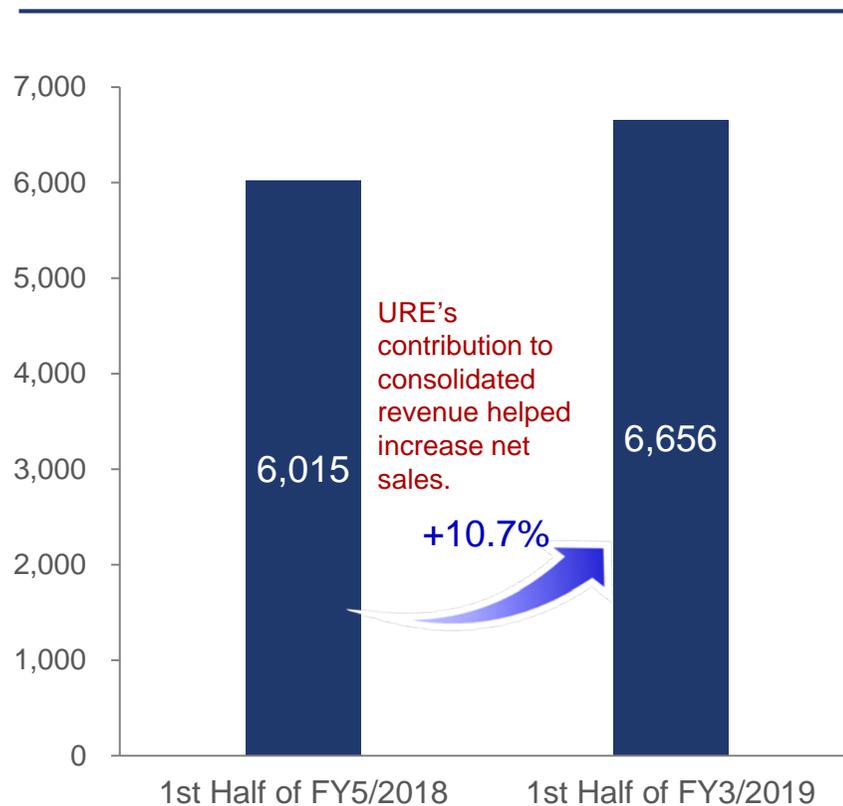
3 Upward revision of full-year financial outlook

Trends in Net Sales and EBITDA

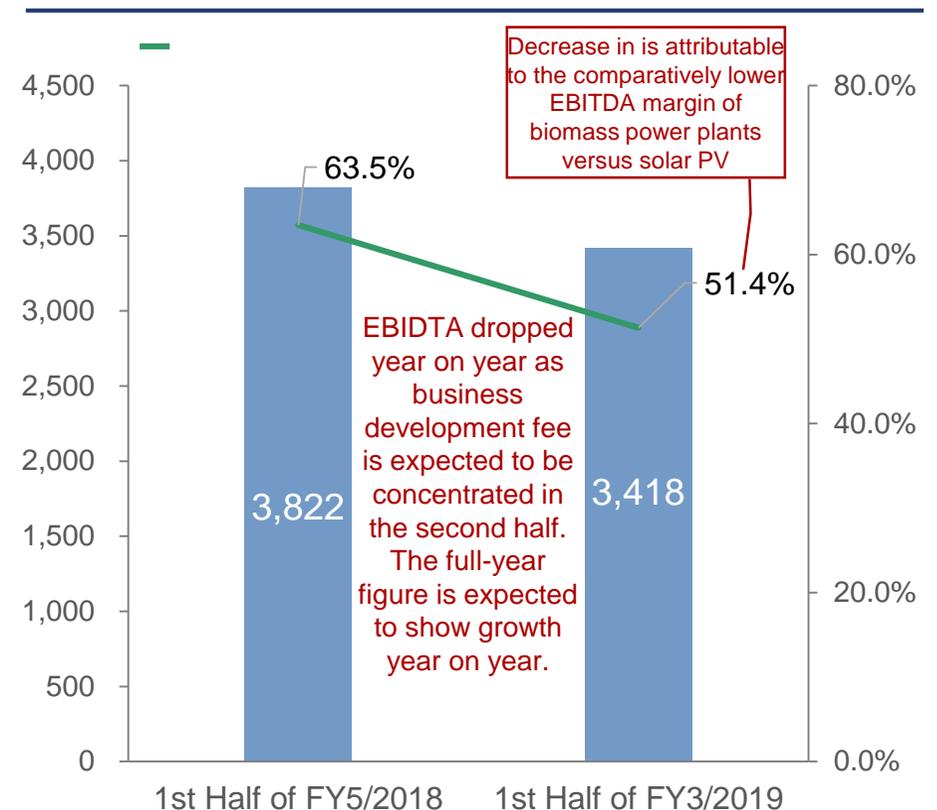
(Million yen, %)

- Net sales for the first half of FYE 3/2019 grew compared to the same period of the previous year, driven by consolidation of Akita Biomass (URE).
- EBITDA dropped year on year as business development fee is expected to be concentrated in the second half. The full-year figure is expected to show growth year on year.

Comparison in Net Sales



Comparison in EBITDA*1



*1 EBITDA = Ordinary profit + Net interest expenses + Depreciation + Amortization of long-term prepaid expenses (Amortization of grid connection costs and amortization of deferred consumption tax) + Amortization of goodwill + Amortization of deferred assets (Amortization of business commencement expenses and amortization of deferred organization expenses). EBITDA is neither subject to audit nor quarterly review.

Half-Year Financial Results Highlights

(Million yen, %)

- Financial results are in-line with the quarterly outlook.
- For FY5/2018, business development fee was concentrated in the first half. For FY3/2019, a large business development fee is expected to be recorded in the second half.

	1 st Half of FY3/2018 (actual)	1 st Half of FY3/2019 (actual)	YoY Change	
Net sales	6,015	6,656	+640	<ul style="list-style-type: none"> ■ Net sales were up after consolidation of the Akita Biomass Project.
EBITDA*1	3,822	3,418	-403	
<i>EBITDA margin</i>	63.5%			<ul style="list-style-type: none"> ■ For FY3/2019, business development fee is expected to be concentrated in the second half. ■ Steady progress in accordance with the full-year outlook
Operating profit	2,535	1,941	-594	
Ordinary profit	1,812	1,166	-646	
Profit*2	900	322	-578	

*1 EBITDA = Ordinary profit + Net interest expenses + Depreciation + Amortization of grid connection costs + Amortization of goodwill + Amortization of business commencement expenses. EBITDA is neither subject to audit nor quarterly review.

*2 Profit attributable to owners of parent

Project Development Update: Tokushima Biomass Project

- Received commitment letter for project financing.
- Expecting final investment decision shortly, after receipt of necessary permits and approvals.

Overview of the Tokushima Biomass Project



Project Overview

Generation Capacity	75 MW
Main Fuel	Wood pellets (co-fired with palm kernel shells (PKS) and domestic woodchips)
FIT Price	¥24/kWh (¥32/kWh for domestic wood biomass)

Development Progress

Project Development

- Signed EPC contract. Secured boilers, turbines and other equipment.
- Signed fuel supply agreement and secured long term supply

Financing

- Received commitment letter for project financing.

Permits and Approvals

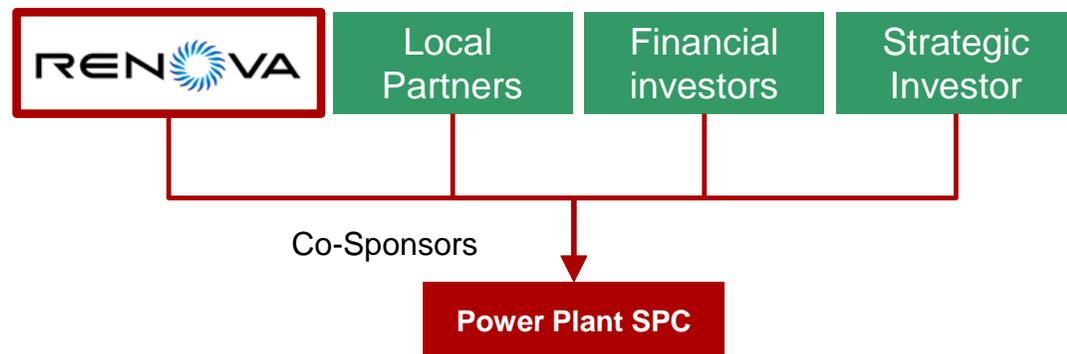
- In the final phase of securing necessary permits and approvals to commence construction

Expecting FID Shortly

Tokushima Biomass Project Structure and Additional Business Development fee

- Total amount of business development fees associated with the Tokushima Biomass Project are expected to exceed initial forecasts.

Project Structure



- RENOVA has led the development of, and successfully realized the value of the Tokushima Biomass Project.
- As a result, the project has successfully attracted high-quality equity investors, including a large strategic investor
 - In particular, the large strategic investor has contributed towards increasing the project’s credibility, attaining favorable financing terms, improving construction risk allocation, and others.

- Expecting to receive an additional business development fee from one of the project’s co-sponsors.
- Total amount of business development fees to be received from the project SPC and one of the project’s co-sponsors are expected to exceed initial forecasts.

Upward Revision to Full-Year Forecast for FYE March 2019

(Million yen, %)

- In addition to strong electricity generation figures from the Renewable Energy Power Generation Business, the likelihood of receiving additional revenue attributable to the Tokushima Biomass Project has increased significantly.
- Financial forecasts for FY3/2019 are revised upwards to account for this revenue.

	FYE March 2019 (Previous forecast)	FYE March 2019 (Revised forecast)	Change	%
Net Sales	13,000	13,600	600	4.6%
EBITDA*1	6,500	7,100	600	9.2%
<i>EBITDA margin</i>	50.0%	52.2%	-	-
Operating profit	3,700	4,300	600	16.2%
Ordinary profit	2,100	2,700	600	28.6%
Net income*2	900	1,350	450	50.0%

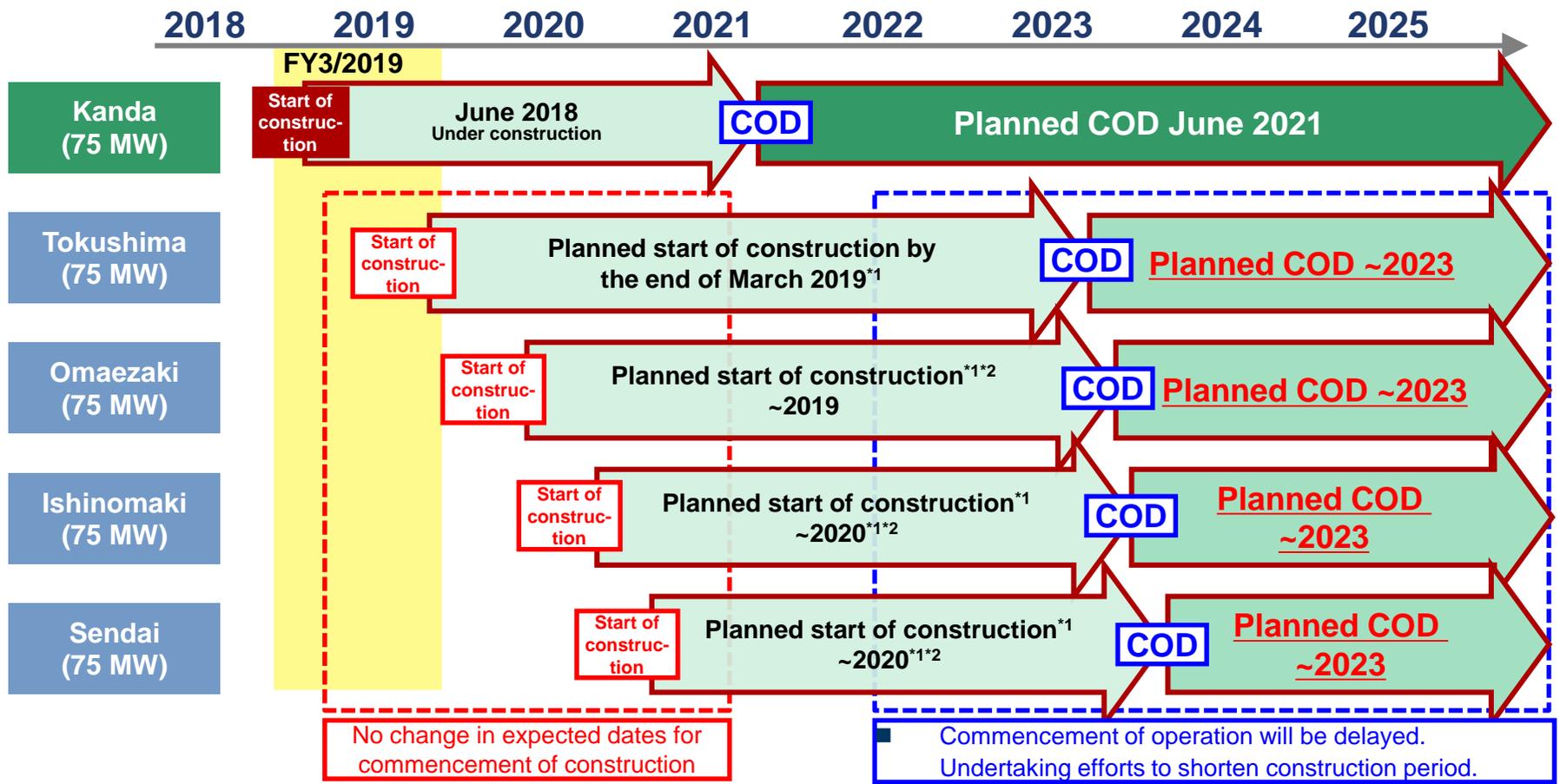
- The Renewable Energy Power Generation Business has performed well against initial forecasts.
- The total amount of business development fees associated with the Tokushima Biomass Project are expected to exceed initial forecasts.
- Revising forecasts due to [a >30% revision](#) to full-year forecasts for net income

*1 EBITDA = Ordinary profit + Net interest expenses + Depreciation + Amortization of long-term prepaid expenses (Amortization of grid connection costs and amortization of deferred consumption tax) + Amortization of goodwill + Amortization of deferred assets (Amortization of business commencement expenses and amortization of deferred organization expenses). EBITDA is neither subject to audit nor quarterly review.

*2 Profit attributable to owners of parent

Changes to Project Development Schedule

- Due to increased demand for biomass boilers and tight production capacity, COD of upcoming project are expected to be delayed by approximately 3 to 8 months compared to prior expectations
- Undertaking efforts to shorten construction period.



^{*1} That takes into consideration the period for construction preparation after financing agreement. Projects may be altered, postponed or cancelled depending on development progress and on comments based on environmental impact assessments.

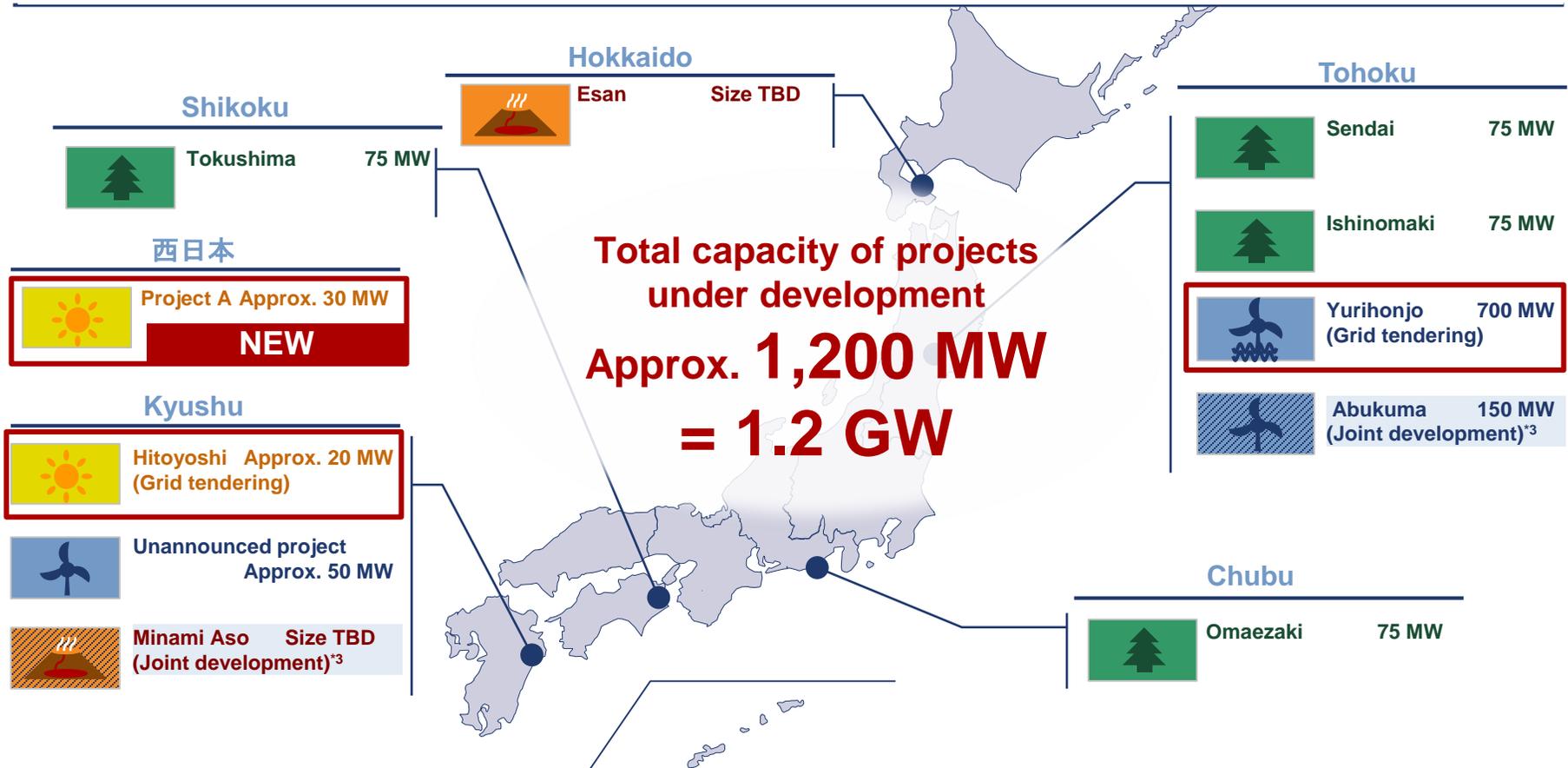
^{*2} This represents the expected start date of construction as defined by RENOVA, which differs from what is included in documents for environmental impact assessments.

Project Development Pipeline

Currently Disclosable Pipeline Projects*1

- Increase in expected generation capacity of Yurihonjo offshore wind project and new pipeline projects bring disclosable development pipeline to 1,200 MW, or 1.2GW.

Map of Major Development Projects (shading indicates joint development projects)



*1 Pipeline projects are categorized as "projects under development," "projects under assessment" and "upfront investment projects." Projects may be altered, postponed or cancelled in the course of development.

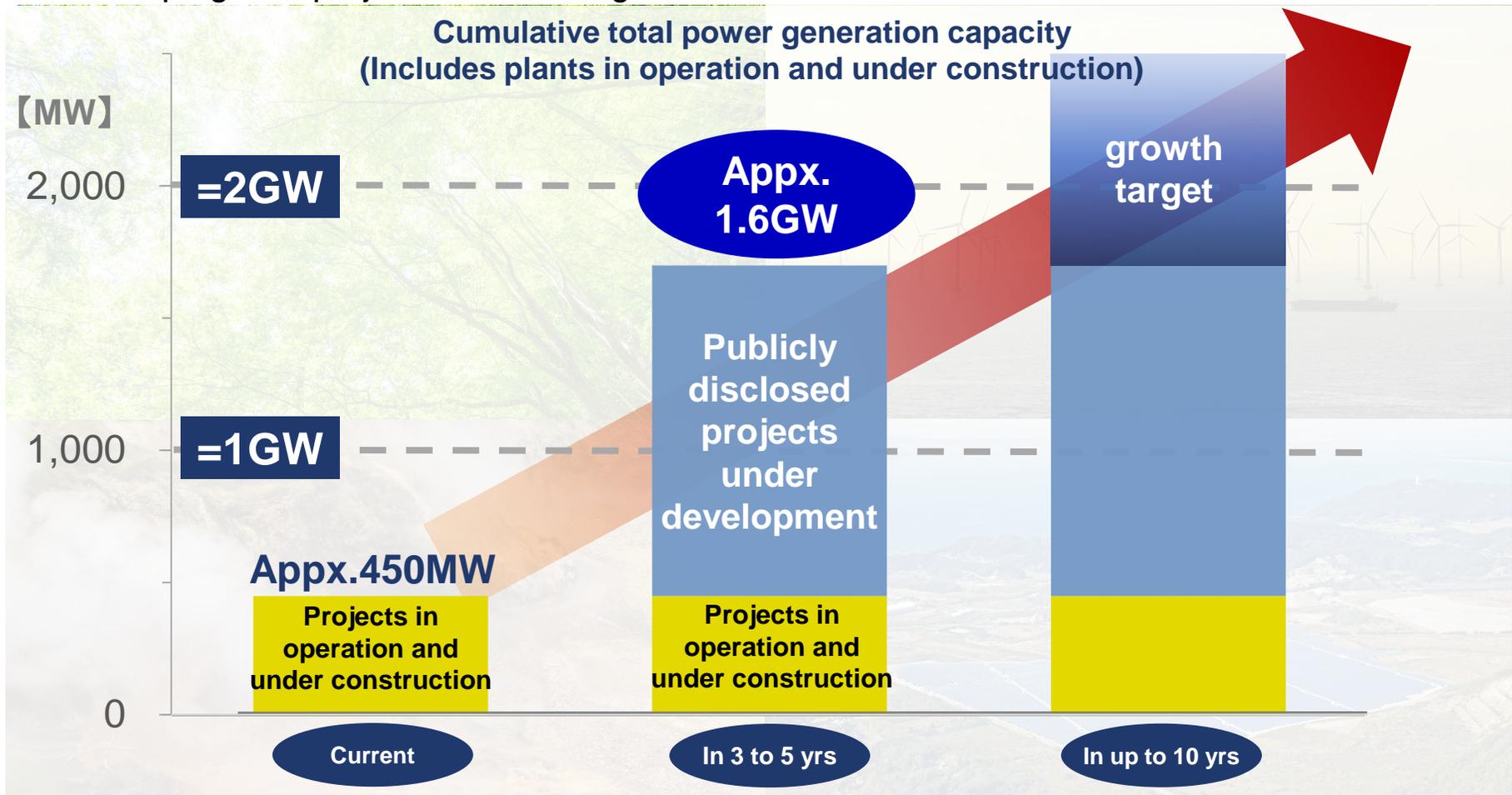
*2 "Projects under development" are defined as projects for which development has progressed to a certain extent. Unless otherwise specified, projects whose feasibility has passed initial verification by RENOVA's management committee and approved for development are categorized as "projects under assessment" and "upfront investment projects" depending on the degree of progress. "Projects under assessment" have progressed further than "upfront investment projects".

*3 Joint development projects.

Target Development Scale

(Unit: GW*1)

- A total of over 1.6GW of total generation capacity, comprising of projects in operation, projects under construction, and publicly disclosed pipeline projects. Actively sourcing and developing new projects for further growth



*1 One gigawatt (GW) equals 1,000 megawatts (MW).

2. Frequently Asked Questions and Update on RENOVA's Project Development Status



FAQs Concerning Offshore Wind Power Projects

A view from a self-elevating platform off the coast of Yurihonjo in Akita Prefecture

Frequently Asked Questions

- Q1 What is the new legislation on offshore wind power generation*¹
- Q2 What is the development process for projects that utilize the new legislation?
- Q3 What will be the criteria for evaluating public tenders?
- Q4 How has development of the Yurihonjo project advanced?
- Q5 What are RENOVA's capabilities with regard to offshore wind development and engineering?

*1 Act of Promoting Utilization of Sea Areas in Development of Power Generation Facilities Using Maritime Renewable Energy Resources (promulgated on December 7, 2018)

Q1 What is the new legislation on offshore wind power generation?^{*1}

- The Act on Promotion of Use of Sea Areas Concerning Construction of Marine Renewable Energy Power Generation Facilities was passed on December 7, 2018.
- The legislation allows offshore wind power plants to occupy general sea areas for 30 years.
- Approximately five development promotion zones will be designated for public tenders.

Purpose of the new legislation

■ Ensure efficient development and long-term stable operation of offshore wind power projects^{*2}

■ Facilitate and expedite development of power generation projects in general sea areas

Main points concerning the new legislation

The new legislation provides a legal framework whereby the government will conduct public tenders to select operators that develop and occupy general sea areas for 30 years.

The legislation will facilitate project development by establishing committees that provide a forum for coordination among various stakeholders

Approximately five promotion zones will be selected for public tenders.

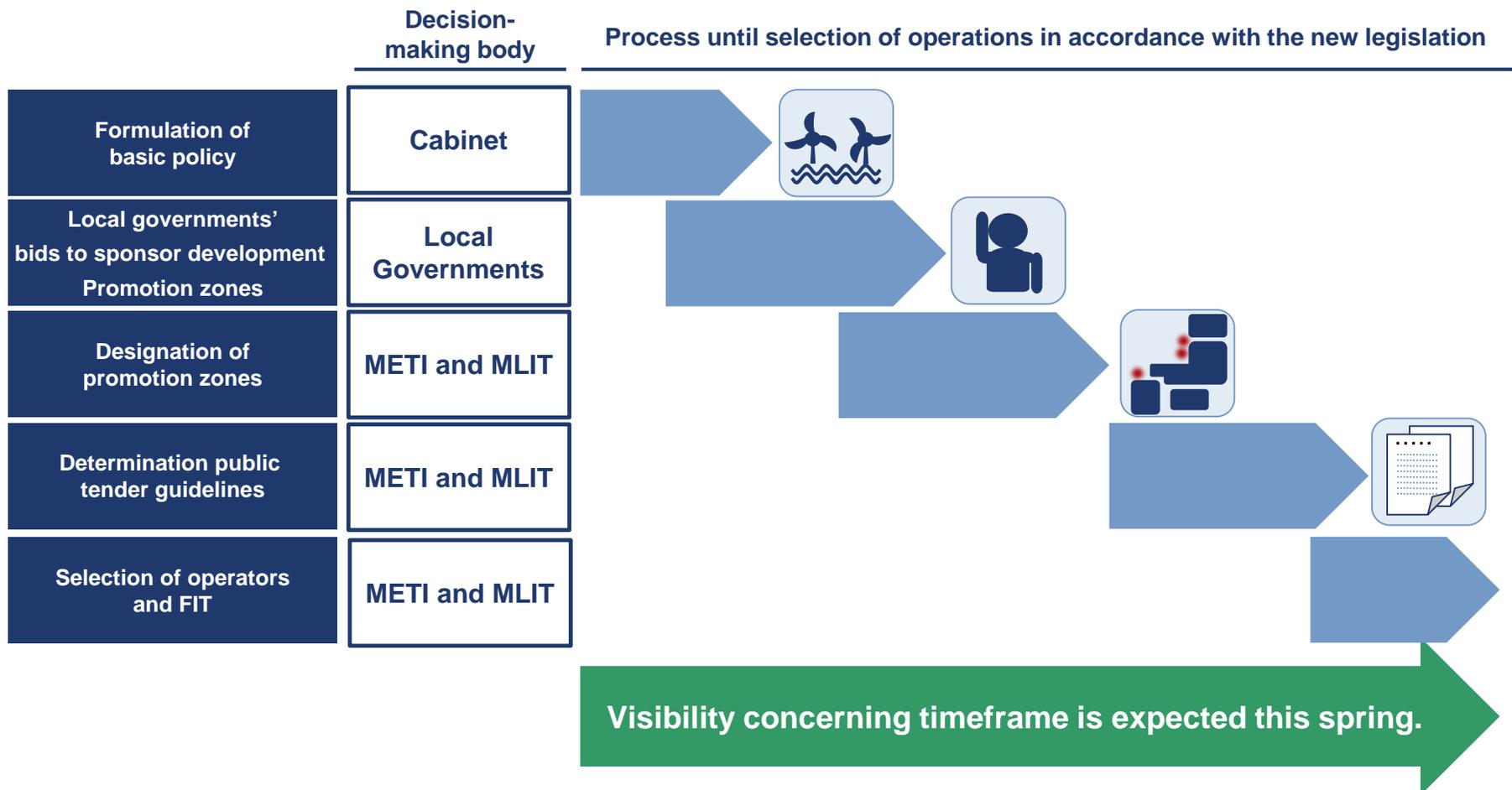
Prior project development work that has been undertaken will be taken into consideration in the public tender process

^{*1} Act of Promoting Utilization of Sea Areas in Development of Power Generation Facilities Using Maritime Renewable Energy Resources (promulgated on December 7, 2018)

^{*2} They include not only offshore wind power generation but also tidal power generation and power generation using other marine renewable energy

Q2 What is the development process for projects that utilize the new legislation?*

■ The Ministry of Economy, Trade and Industry (METI) and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) will jointly designate development promotion zones, taking into account project development progress and bids from local governments' to sponsor development promotion zones.



*1 Act of Promoting Utilization of Sea Areas in Development of Power Generation Facilities Using Maritime Renewable Energy Resources (promulgated on December 7, 2018)

Q3 What will be the criteria for evaluating public tenders?

- Bids will be required to include project details, design schematics, FIT bid price, and other items.*¹
- The evaluation criteria will take into account past project development as well.

Items to be included for placing bids*¹

Approx. 15 items including ...

Project details

Design schematics

Work methods

FIT price

Relations with local stakeholders and ability to coordinate with local governments

Budget and financial plan

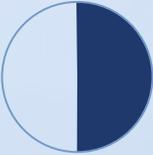
Key points

- In addition to technical and engineering capabilities that support the project development and the FIT price, a deep understanding of the relevant development promotion zone will be key to success.
- The evaluation criteria includes items that give consideration to existing developers, such as relations with local stakeholders and ability to coordinate with local governments.

*¹ Article 14 in the Act of Promoting Utilization of Sea Areas in Development of Power Generation Facilities Using Maritime Renewable Energy Resources (promulgated on December 7, 2018)

Q4 How has development of the Yurihonjo project advanced?

- Steady progress including completion of the second phase of the seabed survey and erection of an additional met mast.
- Steady progress of project engineering. Undertaking wind turbine selection and schematic designs.

	Current status of project development	Status
Seabed survey	<ul style="list-style-type: none"> ■ <u>Conducted seabed geotechnical surveys over two summers</u> from 2017. 	
Wind conditions	<ul style="list-style-type: none"> ■ <u>Wind conditions will have been recorded for over one year at 4 separate observation points</u> by the end of August 2019. 	
Selection of wind turbines	<ul style="list-style-type: none"> ■ Prospective wind turbines have been <u>shortlisted to two models</u>. Proceeding with detailed analysis in light of site specific conditions. 	
EPC	<ul style="list-style-type: none"> ■ Obtained bids from four EPCs including major construction firms. <u>Currently proceeding with schematic design process.</u> 	

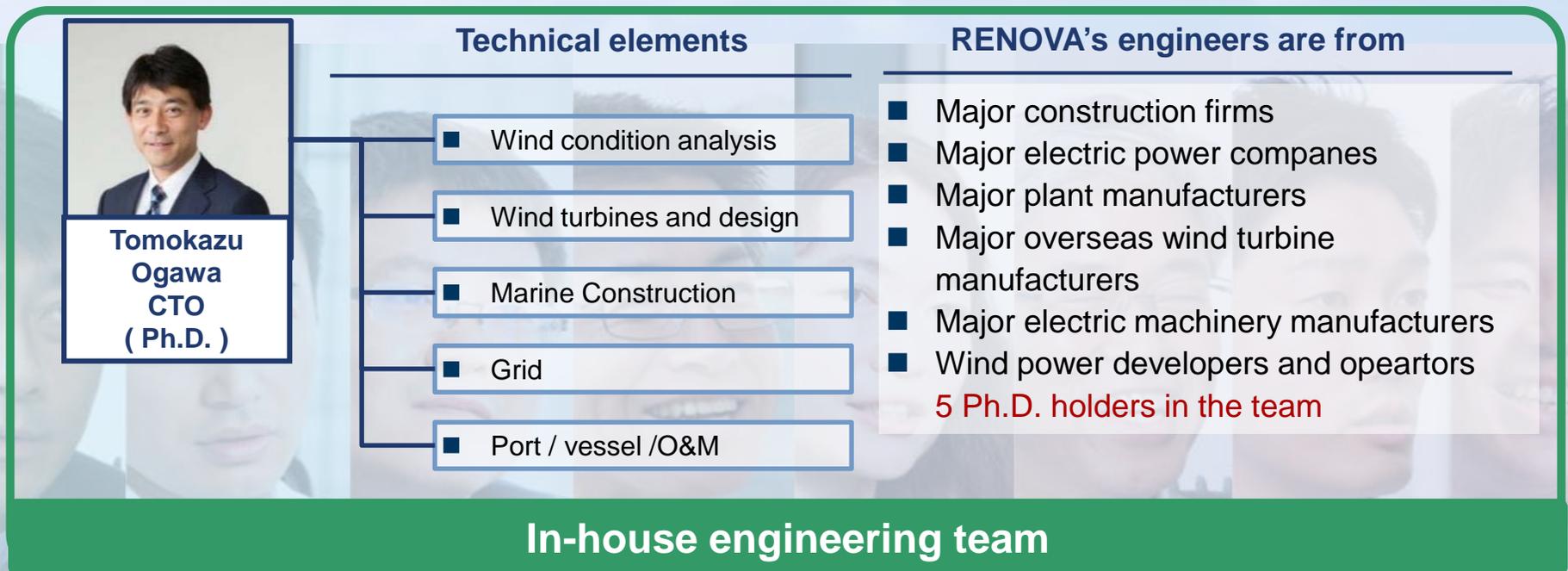
Q4 How has development of the Yurihonjo project advanced? (cont'd)

- The environmental impact assessment is proceeding according to schedule and is approximately halfway complete.
- Conducted a voluntary large-scale briefing to local communities in order to obtain support and promote understanding concerning the project.

	Current status of project development	Achievement level
Environmental impact assessment	<ul style="list-style-type: none"> ■ An on-site survey has been conducted since April 2018. ■ <u>The preparation a draft Environmental Impact Statement will be submitted for inspection around summer 2019.</u> 	
Grid connection	<ul style="list-style-type: none"> ■ <u>The status of the grid tender is subject to a non disclosure agreement</u> with Tohoku Electric Power Co., Inc. and cannot be disclosed. 	N/A
Local relations	<ul style="list-style-type: none"> ■ <u>Secured support from fishery association.</u> ■ <u>Conducted a voluntary large-scale briefing to local communities.</u> 	In progress
Finance	<ul style="list-style-type: none"> ■ Selected financial advisors in 2017. ■ <u>Received financing indications</u> in January 2018. 	

Q5 What are RENOVA's capabilities with regard to offshore wind development and engineering?

- Under direct supervision of RENOVA's CTO, our in-house engineering team spearheads the technical and design aspects of the project development.
- In-house project management capabilities span construction scope, process, cost, quality, risk, etc., and incorporates cutting-edge technology and engineering knowhow from European players,



- Technical workshops with cutting-edge European developers
- Support from European technical consulting firm with knowledge in offshore wind power generation

Other frequently asked questions

Q6 What are the impacts of measures targeted at delayed development solar PV projects?

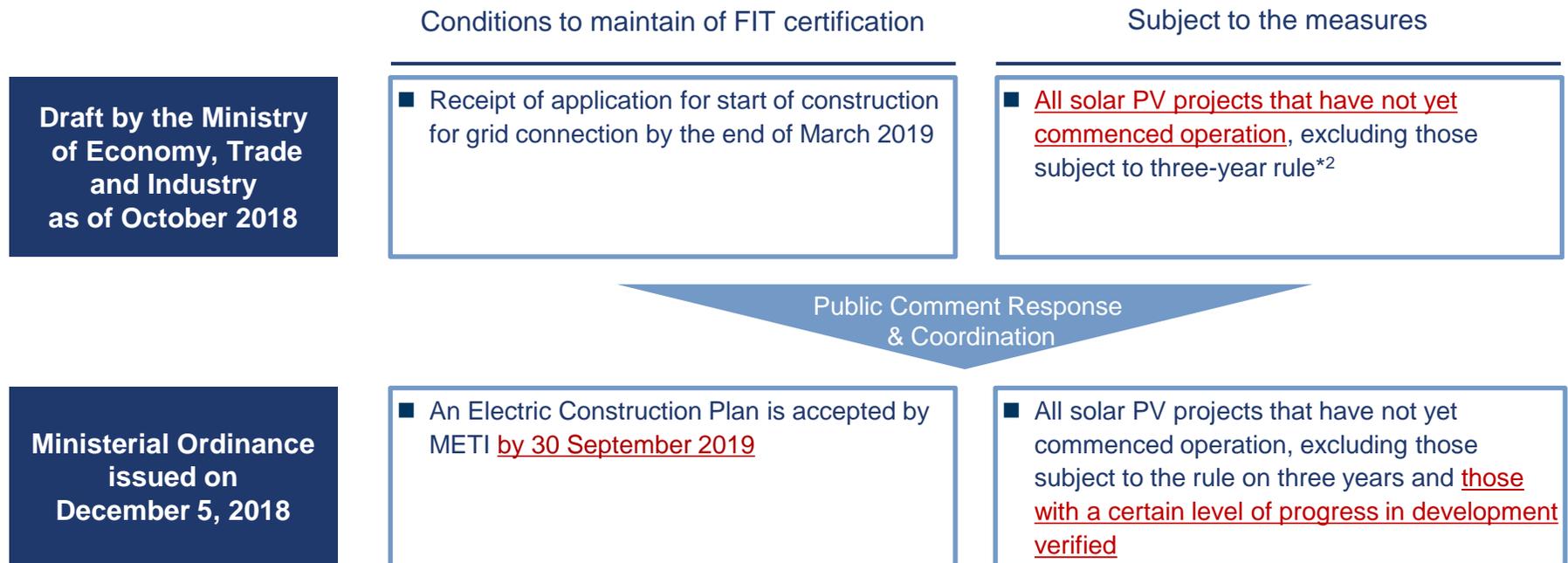
Q7 What is the impact of curtailment?

Q8 What does RENOVA do to prepare its facilities for natural disasters?



Q6 What are the impacts of measures targeted at delayed development*¹ solar PV projects?

- Projects that have commenced construction or are subject to the three-year rule are exempt. RENOVA's solar PV projects are not affected.
- A decrease in the number of projects is expected to free up grid capacity.



■ **Plans for RENOVA's disclosed solar PV projects are not affected.**

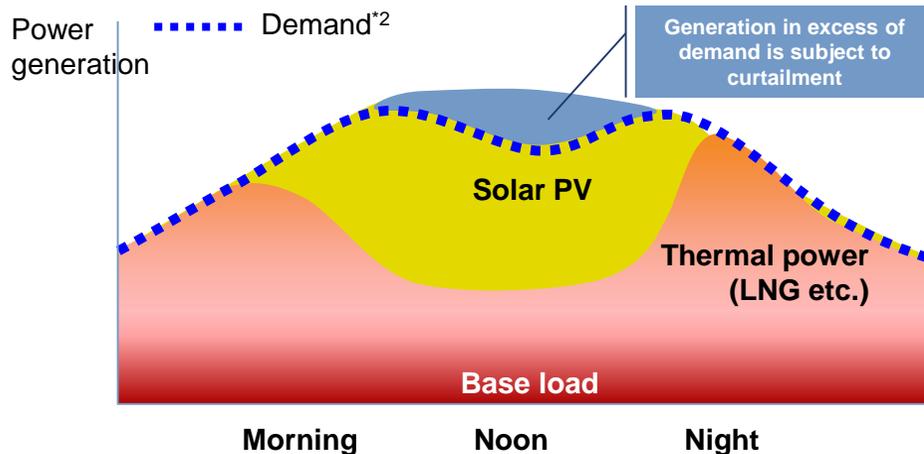
*1 Ministerial Order for Partial Revision of the Regulation for Enforcement of the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities

*2 Projects for which an operation commencement due date that is not later than three years from project approval is set under the Ministerial Order for Partial Amendment of Enforcement Regulation for the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities (Order of the Ministry of Economy, Trade and Industry No. 84 of 2016) and the Public Notice for Partial Amendment of the Public Notice for Procurement Price and Procurement Period (Public Notice of the Ministry of Economy, Trade and Industry No. 212 of July 29, 2016)

Q7 What is the impact of curtailment?

- Kyushu Electric Power Co., Inc. implemented its first curtailment of solar PV facilities this year with minimal impact on operations.
- RENOVA's business plan includes allowances for curtailment of solar PV, and will continue to monitor the situation closely.

Schematic of the Curtailment



- Curtailment takes place mainly
 - in **spring** (April to May) and in **fall** (October to November),
 - on **weekends** and on **holidays** during these times, when the electric power demand is low.

Impact of the Curtailment

Kyushu Electric Power Co., Inc. implemented its first*1 curtailment of solar PV facilities (outside of remote island regions) for a total of seven days in October and November 2018.

- Facilities are subject to curtailment in accordance **with a rotating schedule.**
- RENOVA's Kokonoe and Ozu Solar Power Plants were subject to curtailment for **two days.**

Impact of curtailment on consolidated net sales

Under 0.1%

*1 October 2018 was the first time that output from Kyushu mainland, excluding one remote island, was controlled

*2 Image including adjustment by pumping and storage batteries and utilization of interregional communication lines

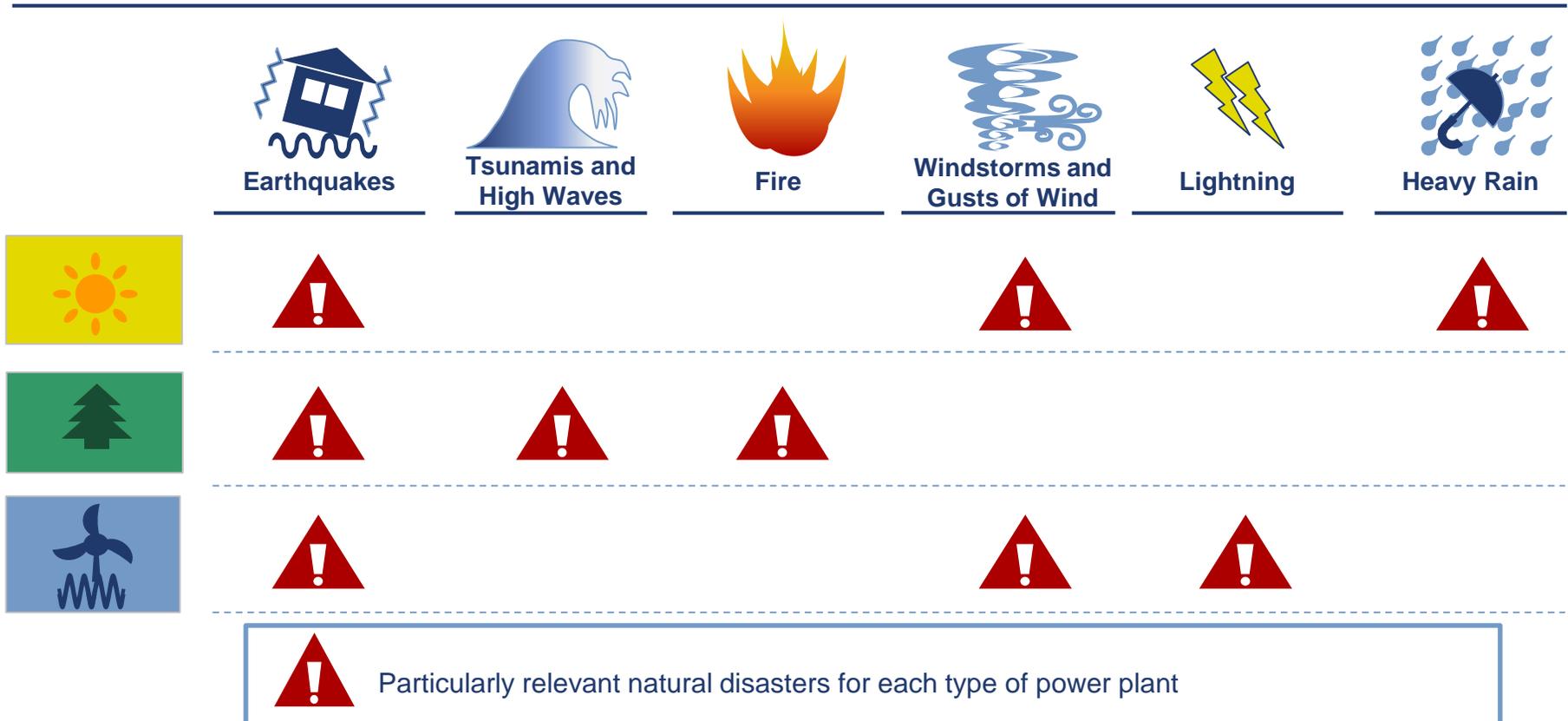
Q8 What does RENOVA do to prepare its facilities for natural disasters? (1/3)

- 1 Evaluate risks and incorporate control measures into facilities and operations.
- 2 Design facility strength in accordance with data on past natural disasters and accidents.
- 3 Prepare spare parts and establish a system for swift business restoration after disasters.
- 4 Purchase insurance policies as necessary, in accordance with risk evaluations for each power plant.

Q8 What does RENOVA do to prepare its facilities for natural disasters? (2/3)

- The focus for designing plants to withstand natural disasters depends on the type of power plant.
- It is necessary to make preparations in consideration of common risks to all energy types, as well as risks that are specific to particular energy types.

Schematic of Disaster Risks by Energy Type



Q8 What does RENOVA do to prepare its facilities for natural disasters? (3/3)

- We undertake measures in consideration of specific risks that are associated with each type of renewable energy power plant.
- We design facilities to ensure a sufficient but non-excessive level of safety, based on rigorous analysis.

Examples of Disaster Control Measures by Energy Type

Solar PV

- Construct reservoirs with capacity to manage levels of torrential rains that are expected to occur once every 30 to 50 years.
- Ensure solar panel installation strength in accordance with design standard wind speeds*1 that are applicable to the specific region.
- Increase the earthquake resistance strength of substations, taking into account lessons from the 2016 Kumamoto Earthquake.

Biomass

- Elevate power generation facilities to account for the possibility of tsunamis.
- In port areas, analyze the possibility of soil liquefaction and incorporate the findings into civil engineering design.
- Design warehouses with fire prevention equipment including sprinklers and compartmentalize facilities to limit the spread of fires.

Wind

- Equip turbines with receptors for lightning strikes.
- Ensure sufficient design strength against earthquakes, windstorms and other natural disasters to comply with class NK windfarm certification*2.

*1 Wind speed specified by the Minister of Land, Infrastructure, Transport and Tourism within the range of 30 m/s to 46 m/s according to the degree of wind damage and other wind characteristics based on records of past typhoons in the area (paragraph (2) of Article 87 of the Order for Enforcement of the Building Standards Act).

*2 Certification complies with international standard IEC61400-22, and fulfills requirements for review of the construction plan notification for wind farms as required under the Electricity Business Act

Our Mission

To create green and sustainable energy systems
for a better world



Appendix

Half-Year Financial Results Highlights

(Million yen,%)

- Financial results are in-line with the quarterly outlook.
- For FY3/2019, a large business development fee is expected to be recorded in the second half.

	FY5/2018 1H YTD	FY3/2019 1H YTD	FY3/2019 (Revised Full-year plan)	Ratio to full-year plan
Net Sales	6,015	6,656	13,600	48.9%
EBITDA*1	3,822	3,418	7,100	48.2%
<i>EBITDA margin</i>	63.5%	51.4%	52.2%	-
Operating profit	2,535	1,941	4,300	45.1%
Ordinary profit	1,812	1,166	2,700	43.2%
Extraordinary income	-	-	-	-
Extraordinary losses	19	5	-	-
Profit	900	322	1,350	23.9%
EPS (yen)*2	12.24	4.34	18.13	-
LTM ROE*3	10.1%	2.9%	-	-
Number of power plants in operation*4	8(1)	8(0)	9(0)	-
Capacity (MW)*5	162.3	163.7	185.3	-

*1 EBITDA = Ordinary profit + Net interest expenses + Depreciation + Amortization of long-term prepaid expenses (amortization of grid connection costs and amortization of deferred consumption taxes) + Amortization of goodwill + Amortization of deferred assets (amortization of business commencement expenses and amortization of deferred organization expenses). EBITDA is neither subject to audit nor quarterly review.

*2 The EPS value does not consider adjustment for dilutive shares. This value has been calculated from the average number of shares after share splits on the assumption that share splits effective on May 1 and September 1, 2018, had taken place at the beginning of the previous fiscal year.

*3 For the purpose of calculating LTM ROE, the profit figure for the most recent 12-month period is used, and the equity figure used is the simple average of the values at the beginning of the most recent 12-month period and at the end of the most recent month. *4 The figures in parentheses () represents the number of power plants to which equity method investment is applied. *5 The capacity figures represent gross generation capacity.

Quarterly Results by Segment

(Million yen)

- Consolidation of Akita Biomass and recognition of a development fee from the Kanda Biomass project contributed to year-on-year growth for the first half.
- Increase in development expenses compared to the same period of the previous year is in line with the full-year plan.

		FY5/2018 1H YTD	FY3/2019 1H YTD	FY3/2019 (Revised Full-year plan)	Ratio to full-year plan	
Renewable Energy Power Generation Business (A)	Net sales	5,131	6,233	Net sales growth were driven by consolidation of URE and steady power generation at our solar PV plants.	11,500	54.2%
	EBITDA	3,751	4,143		7,100	58.4%
	Ordinary profit	1,767	1,960		2,800	70.0%
Renewable Energy Development and Operation Business + Elimination (B)*1	Net sales	884	423	Development fee recorded in the 1Q were less than those in the same period of the previous year. No development fee recorded in 2Q	2,100	20.1%
	EBITDA	71	-724		0	NM
	Ordinary profit	45	-794		-100	NM
Total of Continuing Operations (A + B)	Net sales	6,015	6,656	Continued aggressive investment for future growth including personnel expenses.	13,600	48.9%
	EBITDA	3,822	3,418		7,100	48.2%
	Ordinary profit	1,812	1,166		2,700	43.2%

*1 Business development fee that corresponds to RENOVA's stake in subsidiaries and affiliated companies is regarded as transactions within the consolidated group and eliminated in consolidated operating results.

Upward Revision to Quarterly Results by Segment

(Million yen)

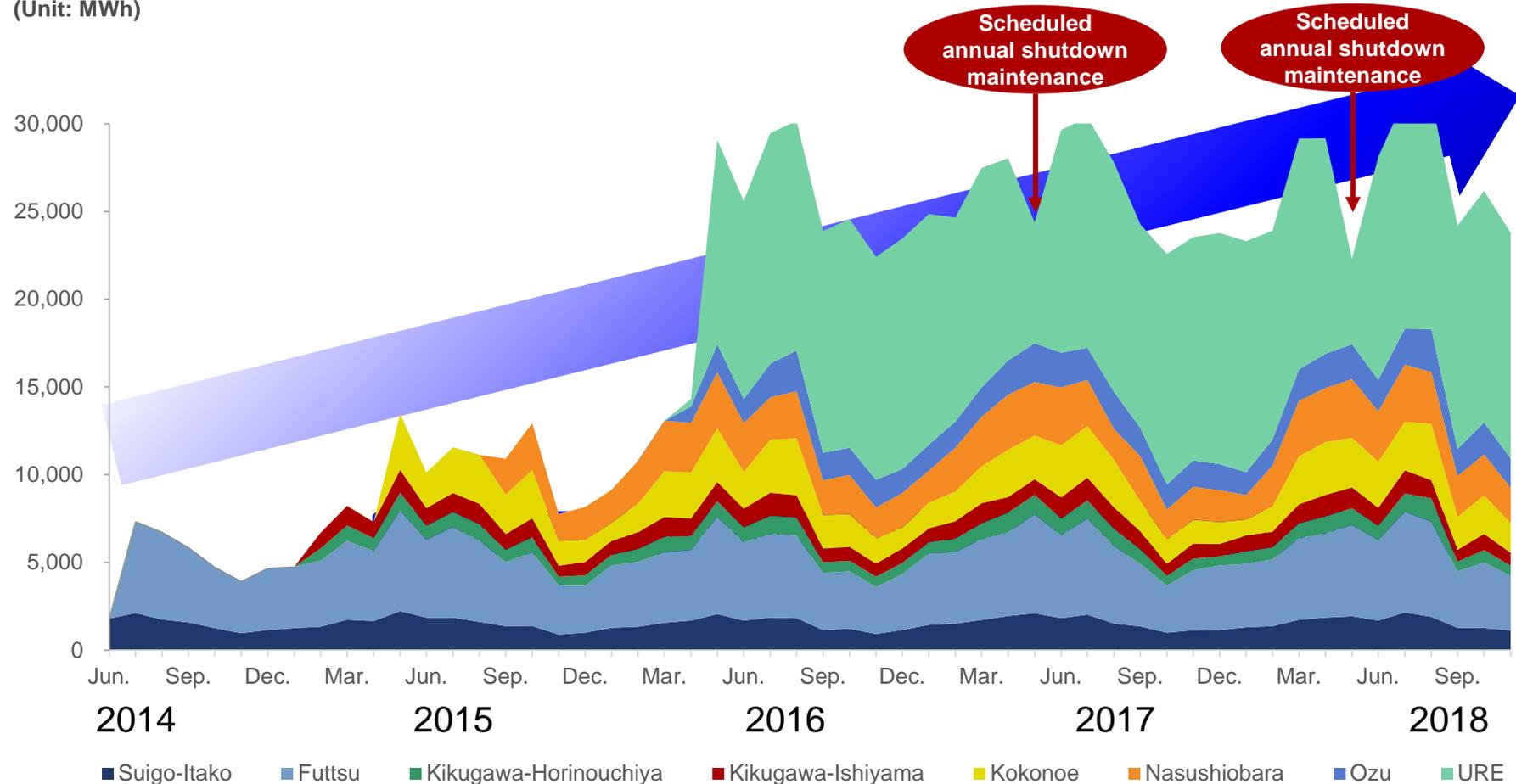
- The Renewable Energy Power Generation Business includes a buffer to account for weather related solar PV power generation risks.
- The upward revision of full-year forecasts for the Renewable Energy Development and Operation Business is due to the additional business development fee associated with the Tokushima Biomass Project.

		FYE March 2019 (previous plan)	FYE March 2019 (Revised plan)	Versus previous plan	
Renewable Energy Power Generation Business (A)	Net sales	11,300	11,500	200	<ul style="list-style-type: none"> ■ The power generation business <u>has posted strong results.</u>
	EBITDA	6,900	7,100	200	
	Ordinary profit	2,600	2,800	200	
Renewable Energy Development and Operation Business + Elimination (B)*1	Net sales	1,700	2,100	400	<ul style="list-style-type: none"> ■ <u>Total amount of business development fees associated with the Tokushima Biomass Project increased.</u>
	EBITDA	-400	0	400	
	Ordinary profit	-500	-100	400	
Total (A + B)	Net sales	13,000	13,600	600	
	EBITDA	6,500	7,100	600	
	Ordinary profit	2,100	2,700	600	

*1 When receiving development fees from affiliated companies, RENOVA records such development fees in its consolidated financial results after deducting amounts that correspond to RENOVA's ownership stake in those affiliated companies. RENOVA's overhead costs are not allocated to the Plastic Recycling Business's EBITDA figures.

Trend in Monthly Electricity Sales Volume by Power Plant*1 (MWh*2)

- Output from solar PV plants is seasonal and is relatively larger from spring to fall due to favorable weather.
 - In September 2018, solar radiation decreased compared to a normal month due to increased autumn rain front and a typhoon.
 - Biomass power plants maintain stable output except during scheduled annual shutdown maintenance in May of every year.
- (Unit: MWh)



*1 Fiscal year-end for each power plant is March 31, and RENOVA's consolidated fiscal year-end is May 31. The figures of each power plant recorded from April to March the following year are recorded in RENOVA's consolidated financial statements. RENOVA changed its fiscal period from the twelve month period ending May of 31 to the twelve month period ending March 31 effective from the current fiscal year.

*2 Units express power generation volume (1 MWh = 1,000 kWh)

Composition of EBITDA

(Million yen)

- Although full-year consolidation of Akita Biomass (URE) resulted in a positive impact, EBITDA decreased as compared to the same period of the previous year, due to business development fees being concentrated in the second half of this fiscal year.

	FY5/2018 1H YTD	FY3/2019 1H YTD	Change	
Ordinary profit	1,812	1,166	-646	
Net interest expense(+)	624	669	45	← Increase due to consolidation of URE
Interest income	0	1	1	
Interest expense + interest on asset retirement obligations	624	670	46	
Depreciations (+)	1,184	1,365	181	← Increase due to consolidation of URE
Amortization of long-term prepaid expenses*1 (+)	9	13	3	
Amortization of goodwill(+)	15	16	0	
Amortization of deferred assets*2 (+)	176	187	11	
EBITDA	3,822	3,418	-403	

*1 Amortization of long-term prepaid expenses = Amortization of grid connection costs + Amortization of deferred consumption taxes..

*2 Amortization of deferred assets = Amortization of business commencement expenses + Amortization of deferred organization expenses.

Balance Sheet

(Million yen)

- Total assets increased due to increases in advances for project development expenses and borrowings to fund development investments.
- Although retained earnings increased, shareholders' equity decreased due to the acquisition of treasury stock following the introduction of a stock compensation system.

	As of FY5/2018	End of 1H of FY3/2019	Change	Major Factors of Increase/Decrease
Current assets	19,185	22,540	3,355	Increase in advances for development expenses
Non-current assets	45,697	46,655	958	
Property, plant and equipment	40,684	39,960	-723	
Intangible assets	1,289	1,256	-33	
Investments and other assets	3,723	5,438	1,714	Additional equity injections to SPCs to fund development of biomass power plants and increased investment for offshore wind project
Deferred assets	830	642	-187	
Total assets	65,713	69,838	4,125	
Interest-bearing debt*1	49,202	53,101	3,899	Increase in borrowings to fund development costs and investments
Other liabilities	5,640	5,678	37	
Total liabilities	54,843	58,780	3,936	
Shareholders' equity	7,673	7,594	-78	Acquisition of treasury stock due to introduction of stock compensation system
Accumulated other comprehensive income	△25	42	67	
Subscription rights to shares	5	4	-1	
Non-controlling interests	3,216	3,417	201	Quarterly net income attributable to noncontrolling shareholders
Total net assets	10,870	11,058	188	

*1 Interest-bearing debt = short-term loans payable + current portion of long-term loans payable + long-term loans payable + lease obligations + outstanding interest-bearing debt

Key Balance Sheet Items and Credit Metrics

(Million yen)

- Leverage ratios increased due to an increase in borrowings to fund development costs and investments.

		As of FY 5/2018	End of 1H of FY 3/2019	Change	Major Factors of Increase/Decrease
Key balance sheet items	Total assets	65,713	69,838	4,125	
	Net assets	10,870	11,058	188	Increase in retained earnings and increase in noncontrolling interests
	Shareholders' equity	7,648	7,636	-11	Acquisition of treasury stock due to introduction of stock compensation system
	Net interest-bearing debt	35,070	38,185	3,102	
	Cash and deposits	14,118	14,915	796	
	Interest-bearing debt^{*1}	49,189	53,101	3,899	Increase in borrowings to fund development projects
Credit metrics	Equity ratio	11.6%	10.9%	-0.7%	
	Net asset ratio	16.5%	15.8%	-0.7%	
	Net D/E ratio^{*2}	3.2x	3.5x	0.2x	
	Net Debt / LTM EBITDA^{*3}	5.6x	6.5x	0.9x	

*1 Interest-bearing debt = short-term loans payable + current portion of long-term loans payable + long-term loans payable + lease obligations + outstanding interest-bearing debt

*2 Net D/E ratio = Net interest-bearing debt / net assets

*3 LTM EBITDA amounted to 6,312 million yen for FYE May 2018 and to 5,908 million yen for 1H YTD of FYE March 2019..

RENOVA's Generation Portfolio and Pipeline (1/2)

List of plants in operation, under construction and pipeline projects*1 (as of January 9, 2019)

- 210MW of solar PV projects are currently under construction at 5 separate sites. Of these projects, Yokkaichi reached commissioning in January 2019.
- Making steady progress in development, having acquired a new pipeline project and also concluded the grid connection agreement for the Hitoyoshi project.

Energy Source	Project Name	Location	Power Generating Capacity (MW)	Purchase Price ² (/kWh)	Current Status	Ownership Interest	EIA Status	COD (Target)
Solar	Suigo-Itako	Ibaraki	15.3	¥40	In operation	68.0%	-	2014
	Futtsu	Chiba	40.4	¥40	In operation	51.0%	-	2014
	Kikugawa-Ishiyama	Shizuoka	9.4	¥40	In operation	63.0%	-	2015
	Kikugawa-Horinouchiya	Shizuoka	7.5	¥40	In operation	61.0%	-	2015
	Kokonoe	Oita	25.4	¥40	In operation	100%	-	2015
	Nasu-Shiobara	Tochigi	26.2 ³	¥40	In operation	100%	-	2015
	Ozu	Kumamoto	19.0	¥36	In operation	100%	-	2016
	Karumai West	Iwate	48.0	¥36	Under construction	38.0% ⁴	-	2019
	Karumai East	Iwate	80.8	¥36	Under construction	38.5% ⁴	-	2019
	Yokkaichi	Mie	21.6	¥36	Commissioning	38.0% ⁴	Underway (commencement of construction approved)	2019
	Nasu-Karasuyama	Tochigi	19.2	¥36	Under construction	38.0% ⁴	-	2019
	Karumai Sonbou	Iwate	40.8	¥36	Under construction	46.0% ⁵	-	2021
	Hitoyoshi	Kumamoto	20.8	¥36	Under assessment (Conclusion of grid contract)	-	-	Around 2022
	Project A	West Japan	Appx.30	¥32	Under assessment	-	-	Around 2021

*1 Projects may be altered, postponed or cancelled in the course of development.

*2 Purchase price is not the actual contractual price agreed to with the party that purchases the electricity, but the fixed purchase price (displayed without consumption tax) applied based on the FIT Scheme for each power generation facility.

*3 The capacity increased from 24.8MW to 26.2MW because additional panels came into operation in April 2018.

*4 RENOVA holds the right to additionally acquire whole equity in the anonymous partnership currently owned by a co-sponsor on or after the date of completion of the power plant.

*5 RENOVA holds the right to additionally acquire 9% equity in the anonymous partnership currently owned by a co-sponsor on or after the date of completion of the power plant.

RENOVA's Generation Portfolio and Pipeline (2/2)

List of plants in operation, under construction and pipeline projects*1 (as of January 9, 2019)

- Steadily proceeding towards development of a balanced generation portfolio. Expecting final investment decision on Tokushima Biomass Project shortly.
- Actively pursuing development of additional projects as well.

Energy Source	Project Name	Location	Power Generating Capacity (MW)	Purchase Price ² (/kWh)	Current Status	Ownership Interest	EIA Status	COD (Target)
Biomass	URE	Akita	20.5	¥32/¥24	In operation	35.3% ³	-	2016
	Kanda ⁴	Fukuoka	Appx. 75	¥24/¥32	Under Construction	43.1%	-	2021
	Tokushima	Tokushima	Appx. 75	¥24/¥32	Final investment decision expected shortly	-	-	Around 2023
	Omaezaki	Shizuoka	Appx. 75	¥24/¥32	Under assessment	-	Underway	Around 2023
	Ishinomaki	Miyagi	Appx. 75	¥24/¥32	Under assessment	-	Underway	Around 2023
	Sendai	Miyagi	Appx. 75	¥24/¥32	Under assessment	-	Underway	Around 2023
Offshore Wind	Yurihonjo	Akita	Appx. 700	TBD	Under assessment (Grid tendering)	-	Underway	Successively from 2024
Onshore Wind	Abukuma	Fukushima	Appx. 150	¥22	Under assessment (Joint) ⁵	-	Underway	Around 2022
	Project B	Kyushu	Appx. 50	¥21	Upfront investment	-	Underway	Around 2024
Geothermal	Minami Aso	Kumamoto	TBD	TBD	Upfront investment (Joint) ⁵	-	-	Around 2021
	Esan	Hokkaido	TBD	TBD	Upfront investment	-	-	TBD

*1 Development projects may be altered, delayed or cancelled due to development status, progress and comments reflecting environmental impact assessments.

*2 Purchase price is not the actual contractual price agreed to with the party that purchases the electricity, but the fixed purchase price (displayed without consumption tax) applied based on the FIT Scheme for each power generation facility.

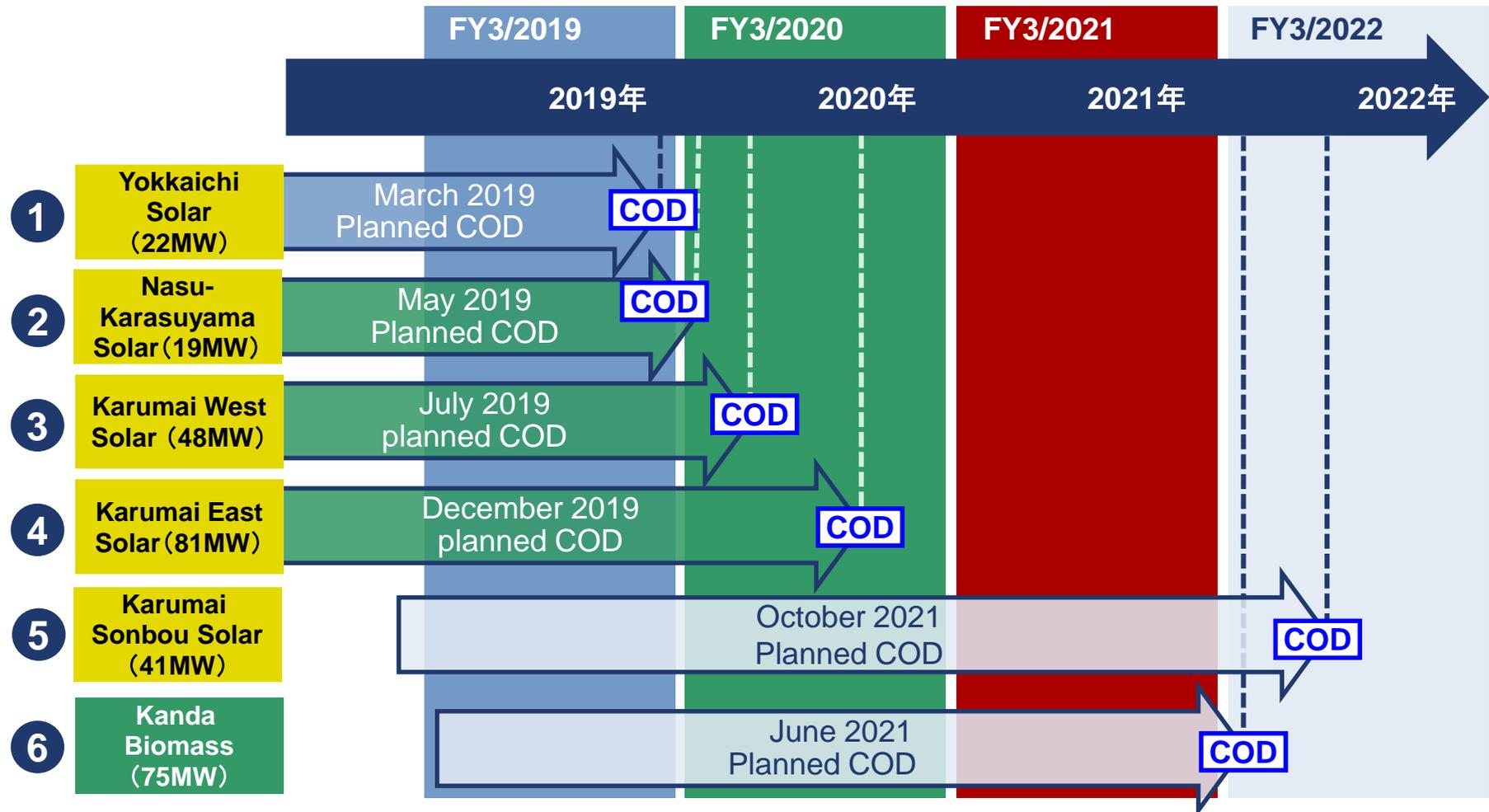
*3 RENOVA has invested in URE through Sensyu Holdings Co., Ltd., a subsidiary of RENOVA. RENOVA's ownership interest in URE, calculated as the product of RENOVA's ownership interest in Sensyu Holdings Co., Ltd., and Sensyu Holdings Co., Ltd.'s ownership in URE, is 35.3%.

*4 Kanda is joint developed project in led by RENOVA, which holds 43.1% of the shares of the SPC as the largest shareholder. Note: we do not have the right to acquire additional equity in the SPC, which is held by four joint investors.

*5 (Joint) indicates a jointly developed project where another company leads development and promotion.

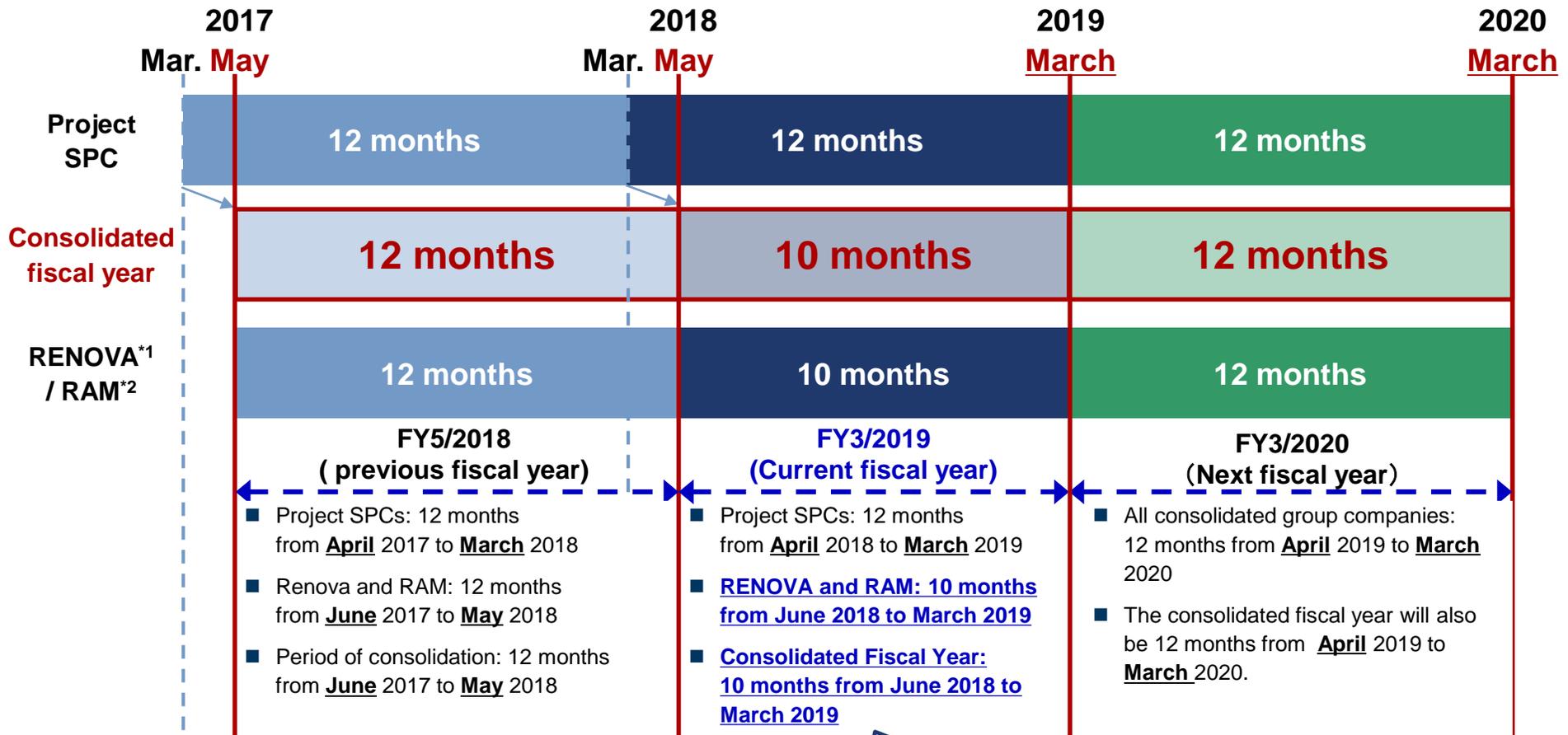
List of Projects Under Construction*1

■ Projects under construction are expected to achieve COD from March 2019 onwards.



*1 Development projects may be altered, delayed or cancelled due to development status and progress.

Change of Fiscal Year End and Resulting Consolidated Fiscal Years



4Q results for project SPCs:
Results for **3 months**
4Q results of Renova and RAM:
Results for **1 month**

*1 Refers to RENOVA as a non-consolidated entity here.
*2 RAM stands for RENOVA Asset Management.

Implementation of Share Splits and Total Number of Shares Issued

- The two share splits are implemented to improve share liquidity and expand the investor base through reduction of the price per share.
- Treasury shares are held for the incentive plan for the Directors (including the External Directors) and Executive Officers

	Split ratio	Total number of shares issued* ¹
As of March 31, 2018	-	18,482,700 shares
As of May 1, 2018	2 for 1	37,094,200 shares
As of September 1, 2018	2 for 1	74,290,800 shares
As of November 30, 2018		
Total number of shares issued	-	74,842,800 shares
Number of treasury shares	-	-400,800 shares
Net number of shares issued	-	74,442,000 shares

*1 The total number of shares issued increased due to exercise of shares option rights besides implementation of share splits.

Status of Share Options etc. with Dilutive Effect

As of November 30, 2018

Name	Strike price	Number of shares corresponding to the remaining number of share options*1 (shares)	Capital incorporation (thousand yen)
16 th Share options	78 yen	97,600	3,806
18 th Share options	78 yen	243,200	9,484
19 th Share options	78 yen	60,800	2,371
20 th Share options	97 yen	147,200	7,139
21 st Share options	97 yen	201,600	9,777
22 nd Share options	97 yen	195,200	9,467
23 rd Share options	97yen	380,800	18,468
24 th Share options	97 yen	107,200	5,199
25 th Share options	97 yen	740,800	35,928
26 th Share options	188 yen	1,364,800	128,291
27 th Share options	188 yen	1,129,600	106,182
1 st Share remuneration-type Share options	293 yen	60,000	8,775
Subtotal	-	4,728,800	344,891
Share-based compensation plan (Treasury shares)	-	400,800	-
Total	-	5,129,600	-
Dilution ratio*2 *3	-	6.9%	-

*1 The total number of shares issued shows the number of shares reflecting the share split implemented on September 1, 2018.

*2 Based on the total number of shares issued, net of treasury shares, which were 74,442,000 shares as of November 30, 2018.

*3 The dilution ratio, including share remuneration-type share options equivalent to 48,500 shares, which were issued on December 17, 2018 in accordance with the resolution of the Board of Directors on November 30, 2018, is 7.0%.

(Reference) Corporate Overview

As of November 30, 2018

Corporate Information		Key History	
Name:	RENOVA, Inc.	May 2000	Established Recycle One, Inc. (currently RENOVA, Inc.)
Location of Head Office	2-2-1 Kyobashi Chuo-ku, Tokyo	May 2006	Entered plastic recycling business
Representatives	Sachio Semmoto, Executive Chairman & Representative Director Yosuke Kiminami, Founding CEO	October 2012	Entered renewable energy business
Established	May 2000	December 2013	Company renamed RENOVA, Inc.
Capital Stock	2,034 million yen	February 2014	COD for Suigo-Itako Solar
Stock Exchange	First section of Tokyo Stock Exchange	July 2014	COD for Futtsu Solar
Securities code	9519	February 2015	COD for Kikugawa-Horinouchiya Solar and Kikugawa-Ishiyama Solar
Business	Renewable energy business	May 2015	COD for Kokonoe Solar
Employees (consolidated)	145	September 2015	COD for Nasu-Shiobara Solar
Corporate Governance		April 2016	COD for Ozu Solar
Board of Directors	8 directors, including 6 external directors	May 2016	Entered the biomass power generation business (United Renewable Energy Co., Ltd. (URE) reaches COD)
Audit & Supervisory Board	4 auditors, including 3 external auditors	August 2016	Divestment of plastic recycling business
Status of Shares		February 2017	Listed on the Tokyo Stock Exchange Mothers Section
Total Number of Authorized Shares	280,800,000	July 2017	Consolidated URE
Total Number of Shares Issued	74,842,800	February 2018	Changed listing venue to the First Section of the Tokyo Stock Exchange
Number of Shareholders	9,160(As of September 30)		