

Briefing on Financial Results for the 2Q of the Fiscal Year Ending March 2023

November 8, 2022

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Tokushima-Tsuda Biomass (74.8MW, Commissioning in October 2022)

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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 off (figures for J-GAAP are rounded down), totals in each column may not match. In this document, current(quarterly) profit is listed as net(quarterly) income attributable to owners of the parent.

For inquiries about this document:
IR Office, RENOVA, Inc.
Telephone: +81-3-3516-6263
Email: ir@renovainc.com
IR website: <https://www.renovainc.com/en/ir>

Key Highlights for 2Q, FY3/2023 (IFRS) and Recent Updates

1

Steady progress on Revenue and Profits towards full-year forecasts.

2

Tokushima-Tsuda Biomass, Ishinomaki Hibarino Biomass and Minami-Aso Yunotani Geothermal started commissioning in October 2022.

3

Steady progress in Non-FIT solar development. Continued progress towards subsequent PPAs*¹.

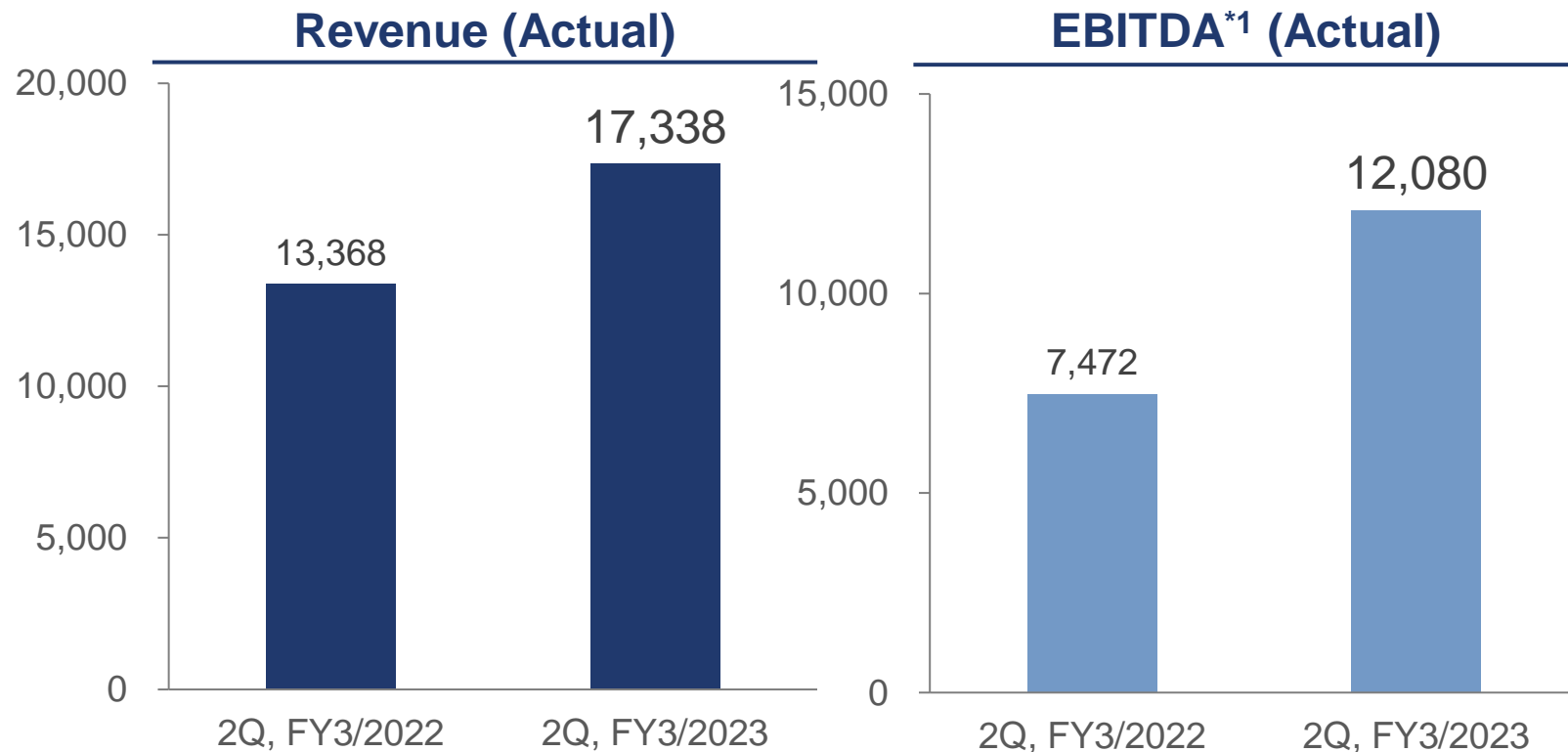


1. Overview of Financial Results for 2Q, the Fiscal Year Ending March 2023

Trend in Revenue and EBITDA*¹ (IFRS)

(Unit: Million yen)

- Revenue increased from the same period of the previous fiscal year due to full-year contributions from Kanda Biomass and Karumai Sonbou Solar, both of which began operations in the previous year.
- EBITDA increased due to increase in revenue, recognition of business development fees, and “Other Income” from gain on the transfer of equity interest in silent partnership of Yokkaichi Solar.



*1 EBITDA= Revenue - Fuel expenses - Outsourcing expenses - Payroll and related personnel expenses + Share of profit (loss) of investments accounted for using the equity method + Other income and expenses. EBITDA is subject to neither audit nor quarterly review.

Financial Highlights for the 2Q, FY3/2023 (IFRS)

(Unit: Million yen)

- Posted record figures for Revenue and EBITDA.

	FY3/2022 2Q YTD	FY3/2023 2Q YTD	FY3/2023 (Forecast)	Change
Revenue	13,368	17,338	35,500	48.8%
EBITDA*1	7,472	12,080	17,800	67.9%
<i>EBITDA Margin</i>	55.9%	69.7%	50.1%	-
Operating Profit	4,016	7,426	8,700	85.4%
Profit for the period attributable to owners of the Parent	7,237	4,820	2,900	166.2%

*1 EBITDA= Revenue - Fuel expenses - Outsourcing expenses - Payroll and related personnel expenses + Share of profit (loss) of investments accounted for using the equity method + Other income and expenses. EBITDA is subject to neither audit nor quarterly review.



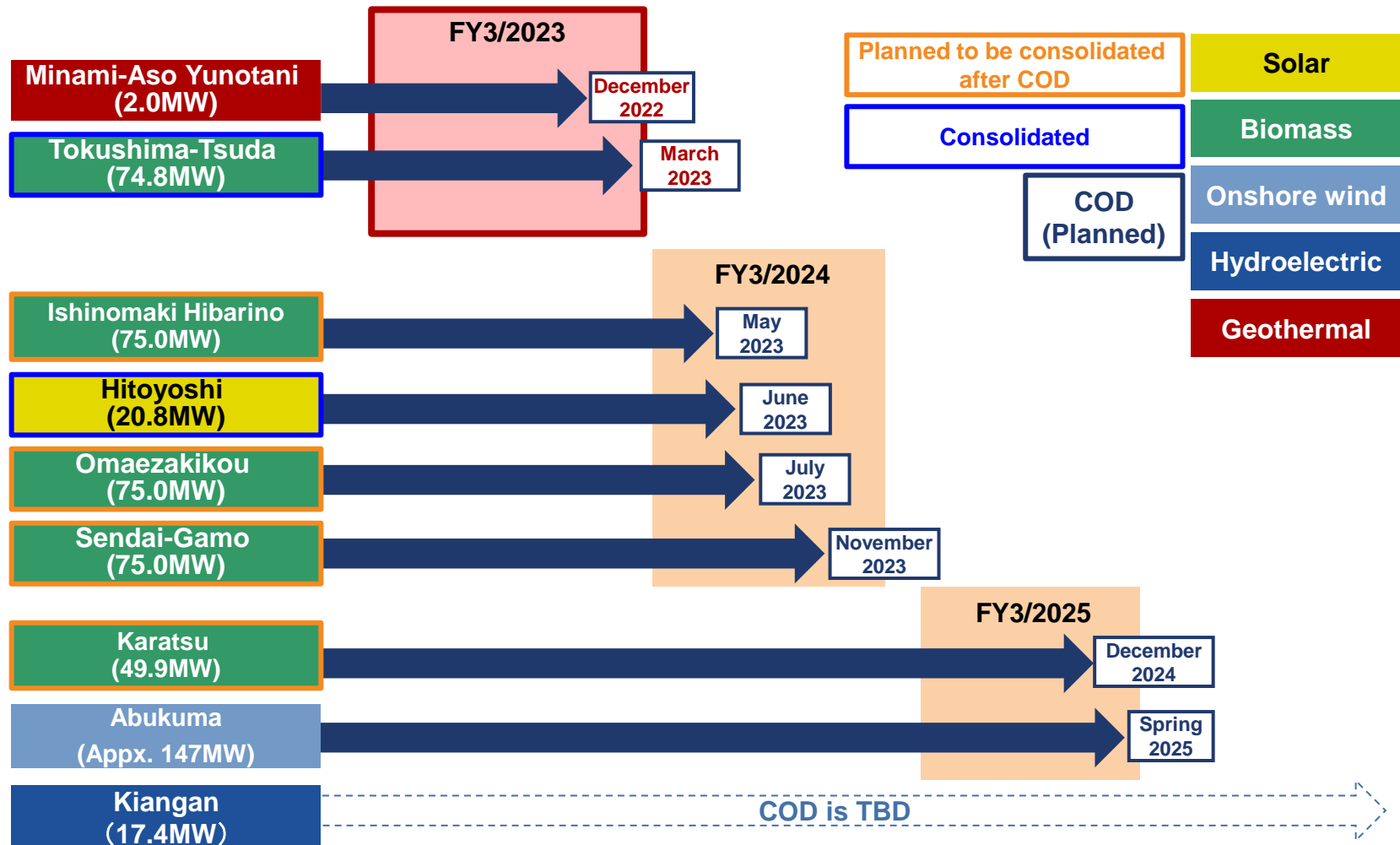
2. Progress of Projects

Kanda Biomass (75.0MW, Kanda-machi, Miyako-gun, Fukuoka Prefecture)

Schedules for Projects Under Construction^{*1*2}

As of November 2022

- Construction of all nine projects^{*2} is progressing as scheduled.



^{*1} Projects under construction may be altered, delayed or cancelled. Projects for which work has commenced in accordance with the EPC contract are shown as “under construction”.

^{*2} The COD of Kangan Hydropower (17.4MW), which started construction in August 2021, has not been disclosed.

Progress of Projects Under Construction (1/4)*1

Tokushima-Tsuda Biomass (74.8MW, Tokushima-shi, Tokushima Prefecture) (As of November 2022)

- Started commissioning in October 2022.
- Steady progress towards commencement of operation in March 2023.

Project Overview



**Aerial View
(As of Oct. 2022)**



**Commissioning
(As of Oct. 2022)**

Capacity*2	74.8MW
Main Fuel	Wood pellets (co-fired with PKS and domestic woodchips)
FIT Price	¥24/kWh (¥32/kWh for domestic woodchips)
Expected Revenue*3	Appx. ¥13 billion / year
Total project cost*4	Appx. ¥50 billion
LTC	90%
Equity Interest after COD*5	RENOVA:60.8%*5 Osaka Gas : 33.5% Others

COD in March 2023 (Planned)*3

*1 Projects for which work has commenced in accordance with the EPC contract are shown as “under construction”. *2 The generation capacity for biomass power plants is based upon the generator output. *3 Projects under construction may be altered, delayed or cancelled. *4 Amount includes all costs and expenses required to start operation, such as power generation facilities, buildings, land, civil engineering development, finance related expenses (including reserves), and start-up related expenses. *5 RENOVA currently holds 70.4 % SPC’s shares as largest shareholder.

Progress of Projects Under Construction (2/4)*1

Ishinomaki Hibarino Biomass (75.0MW, Ishinomaki-shi, Miyagi Prefecture) (As of November 2022)

- Started commissioning in October 2022.
- Steady progress towards commencement of operation in May 2023.

Project Overview



Aerial View
(As of Oct. 2022)



Ignition ceremony
(As of Oct. 2022)

Commissioning
(As of Oct. 2022)

Capacity*2	75.0MW
Main Fuel	Wood pellets (co-fired with PKS and domestic woodchips)
FIT Price	¥24/kWh (¥32/kWh for domestic woodchips)
Expected Revenue*3	Appx. ¥13 billion / year
Total project cost*4	Appx. ¥55 billion
LTC	90%
Equity Interest after COD*5	RENOVA : 51.0%*5 Tokyo Gas : 34.0% Others

COD in May 2023 (Planned)*3

*1 Projects for which work has commenced in accordance with the EPC contract are shown as “under construction”. *2 The generation capacity for biomass power plants is based upon the generator output. *3 Projects under construction may be altered, delayed or cancelled. *4 Amount includes all costs and expenses required to start operation, such as power generation facilities, buildings, land, civil engineering development, finance related expenses (including reserves), and start-up related expenses. *5 RENOVA will hold 62.93 % SPC's shares as largest shareholder.

Progress of Projects Under Construction (3/4)*¹

As of November 2022

- Construction of each biomass power plant is progressing smoothly.

Omaezakikou Biomass (75.0MW, Omaezaki-shi etc., Shizuoka Prefecture)		Sendai-Gamo Biomass (75.0MW, Sendai-shi, Miyagi Prefecture)		Karatsu Biomass (49.9MW, Karatsu-shi, Saga Prefecture)	
<p>Installation work (As of Oct. 2022)</p>		<p>Installation work (As of Oct. 2022)</p>		<p>Foundation work (As of Oct. 2022)</p>	
Capacity* ¹	75.0MW	Capacity* ¹	75.0MW	Capacity* ¹	49.9MW
FIT Price	¥24/kWh (¥32/kWh for domestic woodchips)	FIT Price	¥24/kWh (¥32/kWh for domestic woodchips)	FIT Price	¥24/kWh
COD in July 2023 (Planned)* ²		COD in November 2023 (Planned)* ²		COD in December 2024 (Planned)* ²	

*1 The generation capacity for biomass power plants is based upon the generator output.

*2 Figures are as currently planned and may be subject to change.

Progress of Projects Under Construction (4/4)*1

As of November 2022

- Commissioning of Minami-Aso Yunotani Geothermal started in October 2022.
- Civil work for Kiangan Hydroelectric and module installation work for Hitoyoshi Solar are progressing smoothly.

Minami-Aso Yunotani Geothermal (2.0MW, Minami-Aso Village, Minami-Aso District, Kumamoto Prefecture)		Hitoyoshi Solar (20.8MW, Hitoyoshi-shi, Kumamoto Prefecture)		Kiangan Hydroelectric (17.4MW, Ifugao Province, the Philippines)	
Fumarolic commissioning (As of Oct. 2022)		Installing a module (As of Oct. 2022)		Drilling of power plant (As of Oct. 2022)	
Capacity*1	2.0MW	Capacity*1	20.8MW	Capacity*1	17.4MW
FIT Price	¥40/kWh	FIT Price	¥36/kWh	FIT Price	5.87PHP/ kWh*3 (Appx. ¥11.7*4)
COD in December 2022 (Planned)*2		COD in June 2023 (Planned)*2		Under Construction for COD *2*5	

*1 Projects for which work has commenced in accordance with the EPC contract are shown as "under construction".

*2 Figures are as currently planned and may be subject to change. *3 Assumed FIT unit price in case operation is started during the remaining period of the FIT target frame for small hydroelectric. *4 Reference value converted to Philippine peso = 2 Japanese yen. *5 The COD has not been disclosed.



3. FAQs from Investors

Sendai-Gamo Biomass (75.0MW, Sendai-shi, Miyagi Prefecture)

FAQs from Investors

- 
- Q1 Progress of Projects in Japan**
 - Q2 Growth Prospects of Non-FIT Solar Power Plants Business**
 - Q3 Progress of Overseas Projects**
 - Q4 Systems Surrounding Renewable Energy Business in Asia**
 - Q5 Impacts and Measures against Price Increase of Biomass Fuels**
 - Q6 Recent Impacts from Changes in the Financial Environment**
 - Q7 Risks and Opportunities Based on TCFD Recommendations**

Q1 Progress of Projects in Japan

- Drive development activities by reallocating management resources in accordance with the market growth and the timeframe of each market.

Solar

- Developing low- & high-pressure small power plants under FIP and other non-FIT scheme
- Steady progress in securing land for the development
- Negotiating several PPAs

Offshore wind

- Aim to secure projects by devising strategies for consortium formation in each sea area
- Maximize the use of knowledge & technology gained through past developments and previous round of public tenders

Onshore wind

- Conducting surveys such as wind condition monitoring to evaluate profitability at multiple sites

Geothermal

- Hakodate Esan Geothermal has completed drilling survey and moved to environmental impact assessment
- Preparing for surface surveys at another site

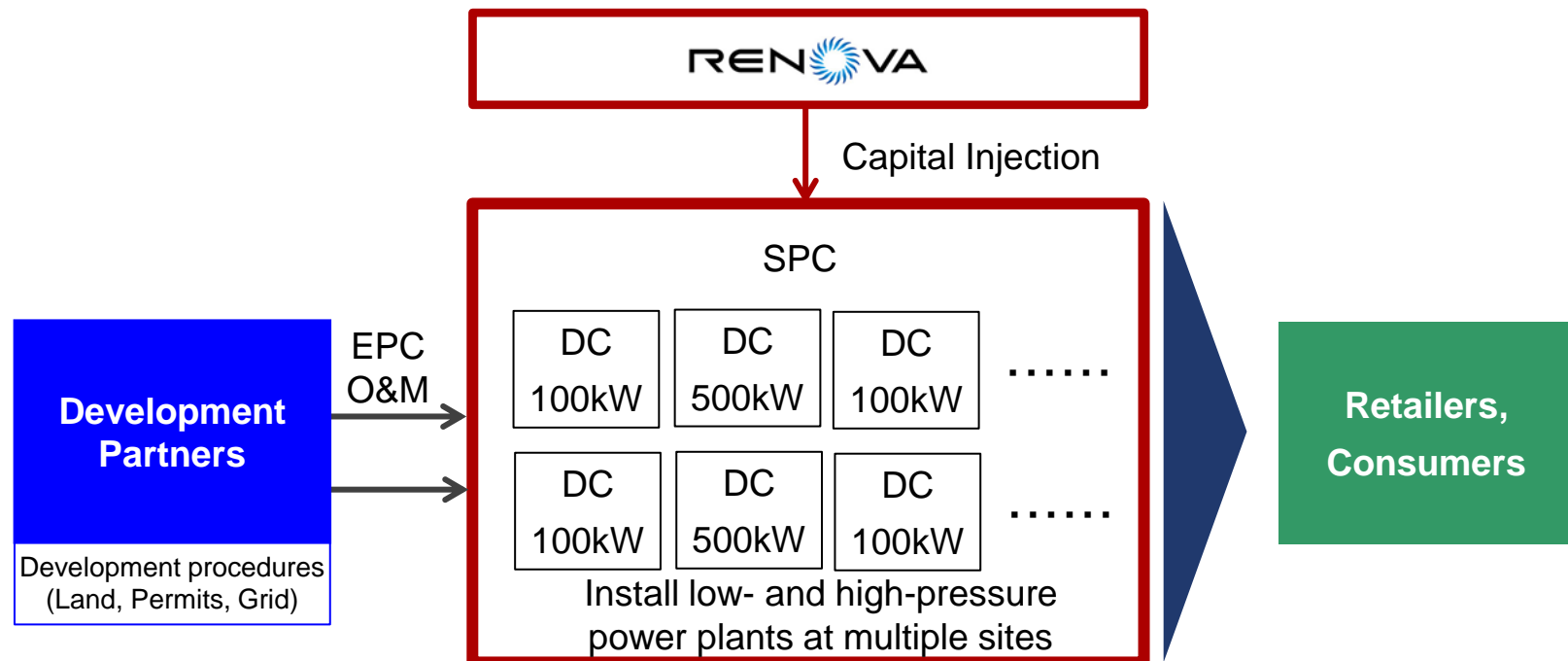
Green Transformation

- Conducting evaluation of specific opportunities for grid storage batteries
- Other renewables-related business opportunities are also under consideration

Q2 Growth Prospects of Non-FIT Solar Power Plants Business

- Drive development of Non-FIT Solar to accumulate new business.
- Actively source development sites and consumers for direct sales.

Model Case for Non-Fit Solar Business

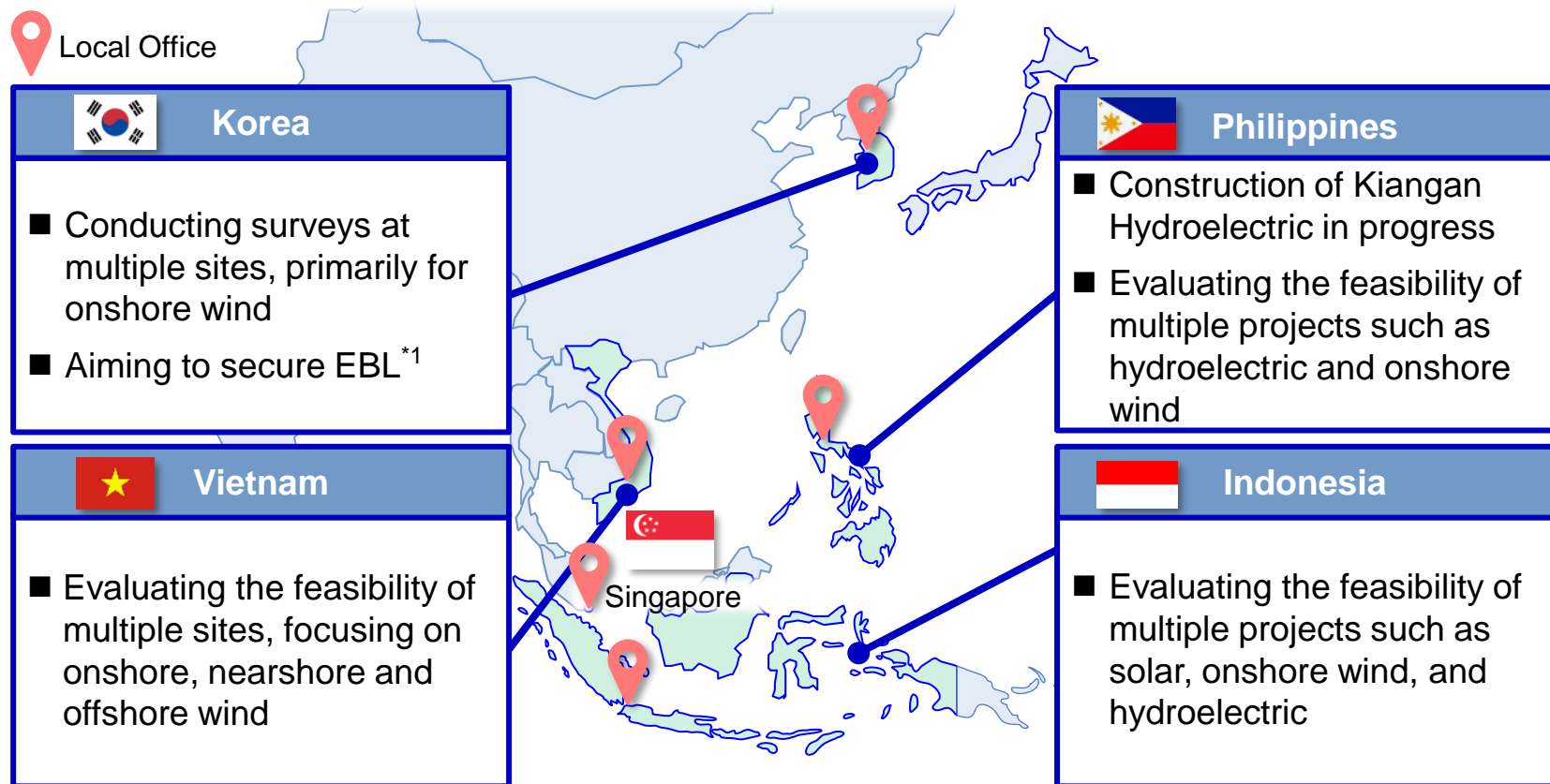


In August 2022, concluded a long-term Power Purchase Agreement with Tokyo Gas Co., an electricity retailer, to sell electricity at fixed price.

Q3 Progress of Overseas Projects

- Promote development in each country under strategies determined by suitable renewable energy technologies and timeframe of market growth.
- Flexibly allocating development resources to each country.

Development status in each country



*1 Electricity Business License

Q4 Systems Surrounding Renewable Energy Business in Asia

- Promote development strategies for each country and renewable energy technology.

Country	RE Installation Target (Share of Capacity)	Characteristics of System	Challenges
Vietnam	<ul style="list-style-type: none"> From 26.9% to 44% (Appx. 147GW^{*1}) by 2045 ※Except for Hydro. 	<ul style="list-style-type: none"> Scheme: Structure for solar and wind is under discussion Price: Depends on technology Period: 20 years in principle (FIT) 	<ul style="list-style-type: none"> The 8th Power Development Plan (PDP8) is still under discussion
Korea	<ul style="list-style-type: none"> From 17.1% to 43% (Appx. 82.2GW^{*2}) by 2034 	<ul style="list-style-type: none"> Scheme: PPA Price: SMP+REC^{*3} Period: 20 years Renewable Portfolio Standard (RPS) 	<ul style="list-style-type: none"> Local consensus Grid connection
Indonesia	<ul style="list-style-type: none"> From 18.1% to 43% (Appx. 248GW^{*4}) by 2050 ※Share of power generation 	<ul style="list-style-type: none"> Scheme: PPA Price: Ceiling price determined by type of technology, size and region Period: 30 years (Except for Biomass) Bidding process in principle 	<ul style="list-style-type: none"> Details of new scheme is under discussion Negotiation with State-owned power utility is required for all projects
Philippines	<ul style="list-style-type: none"> From 29.4% to 68.7% (Appx. 81.5GW^{*5}) by 2040 	<ul style="list-style-type: none"> Scheme: FIT, PSA^{*6} Price: Depends on scheme Period: 20 years (FIT, GEAP^{*7}) GEAP^{*7} from Feb. 2022 <ul style="list-style-type: none"> Run-of-river hydro is subject to FIT 	<ul style="list-style-type: none"> Foreign ownership restrictions: 40% voting right <ul style="list-style-type: none"> Deregulated for Solar and Wind

*1 Estimated from JETRO's survey report *2 Calculated by RENOVA from 5th strategic energy plan and published articles *3 System Marginal price + Renewable Energy Certificate

*4 Estimated from JETRO's survey report and the LLCP scenario in INDONESIA "Long-Term Strategy for Low Carbon and Climate Resilience 2050"

*5 Estimated from the Clean Energy Scenario in PHILIPPINE ENERGY PLAN 2020-2040 *6 Power Supply Agreement, *7 Green Energy Auction Program

Q5 Impacts and Measures against Price Increase of Biomass Fuels

- Great majority of projected fuel requirement by price and by volume has already been fixed in long-term procurement contracts.
- Reinforcement of spot procurement.
- Foreign exchange risk has been minimized by long-term foreign exchange contracts.

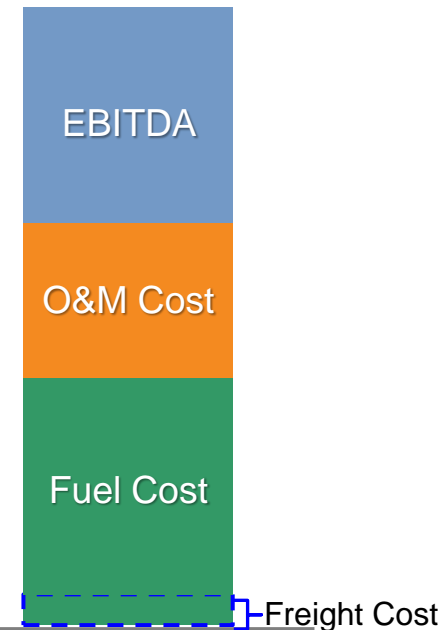
- Current**
- Demand for North American wood fuel has surged in Europe, mainly due to the Russian invasion of Ukraine.
 - As a result, prices for biomass fuels are rising globally including Asia.

Concrete Measures

- Fuels**
- ① **Promptly secure cost-competitive fuel (for spot procurement)**
 - Procurement of quality and cost-competitive wood pellets and PKS through the Biomass Fuel Department's global procurement network
 - Procurement utilizing our large capacity of 450MW (in operation and under construction)
 - ② **Develop new fuel procurement sources (short- to medium-term)**
 - Expand spot supplier network (Upstream investment also under consideration)
 - ③ **Research and source new fuels (long-term)**
 - Survey on fast-growing trees and other fuels

- Freight**
- Freight cost reduction**
- Freight efficiency by leveraging multiple power plants in operation

Image of Cost Structure



Q6 Recent Impacts from Changes in the Financial Environment

- Promote development of renewable energy or related projects with due consideration of financial stability and soundness.

1

Financial Soundness

- Development costs are funded by cash flow from power generation business and corporate borrowing
- Proceed with financing activities with due consideration of financial soundness

2

Project Finance

- Utilize project finance with high leverage for financing of construction of power plants, in order to improve investment return and optimize shareholders' value
- Minimize the risk of interest rate fluctuations through swap transactions

3

Change in the Financial Environment

- Built sustainable relationships with a wide range of financial institutions, including banks, leasing companies and life insurance companies
- Interest rate of power generation projects in operation and under construction is largely fixed, so the impact of rising interest rates is insignificant

Q7 Risks and Opportunities Based on TCFD Recommendations (1/3)

Transition Risks and Physical Risks

- Expressed its support for the TCFD recommendation as part of sustainability management.
- Disclosed risks and opportunities associated with climate change.

	Category	Details
Transition risks	Policies and legal restrictions	<ul style="list-style-type: none"> ■ Revision of laws and regulations related to promoting the adoption of renewable energy
	Technology	<ul style="list-style-type: none"> ■ Decrease in demand for renewable energy sources due to the remarkable advance of power generation technologies that RENOVA is not involved in
	Market	<ul style="list-style-type: none"> ■ Increase in construction costs due to an increase in materials prices ■ Increase in power generation costs due to an increase in biomass fuel prices ■ Decrease in opportunities for future income due to increased output curtailment
	Reputation	<ul style="list-style-type: none"> ■ Reduced social acceptance due to the mass adoption of renewable energy ■ Reduced social acceptance due to accidents at renewable energy facilities due to natural or other disasters
Physical risks	Acute	<ul style="list-style-type: none"> ■ Increase in the risk that power may not be generated as expected due to large-scale wind-related disasters or other sudden weather events, and increases in repairs or other renewable energy facility costs
	Chronic	<ul style="list-style-type: none"> ■ Reduced power generation due to extreme weather ■ Increase in biomass fuel prices due to extreme, prolonged, or other unusual weather

Q7 Risks and Opportunities Based on TCFD Recommendations (2/3)

Transition Opportunities

Category	Details
Resource efficiency	<ul style="list-style-type: none"> ■ Increase in opportunities for future income due to a decrease in biomass fuel prices ■ Increase in business opportunities using renewable energy sources
Energy sources	<ul style="list-style-type: none"> ■ Increase in opportunities for the development of diverse renewable energy sources due to diversification ■ Increase in power generation due to an increase in sunlight caused by climate change, improved wind conditions or other factors
Products and services	<ul style="list-style-type: none"> ■ Growth in demand for renewable energy due to a decrease in demand for fossil energy ■ Lower levelized cost of energy (LCOE) due to technological advance or other factors ■ Increase in demand for renewable energy due to an increase in electricity demand resulting from the expansion of electrification
Market	<ul style="list-style-type: none"> ■ Improved financing environment ■ Increase in opportunities for future income due to the introduction of environmental value, including carbon pricing and non-fossil fuel certificates ■ Increase in business opportunities due to the expansion of the renewable energy market resulting from decarbonization promoted by companies and growth in demand for renewable energy
Resilience	<ul style="list-style-type: none"> ■ Increase in business opportunities due to progress in infrastructure construction including power transmission and distribution infrastructure ■ Increase in business opportunities due to growing awareness of the improvement of energy self-sufficiency

Transition opportunities

Q7 Risks and Opportunities Based on TCFD Recommendations (3/3) Metrics and Targets

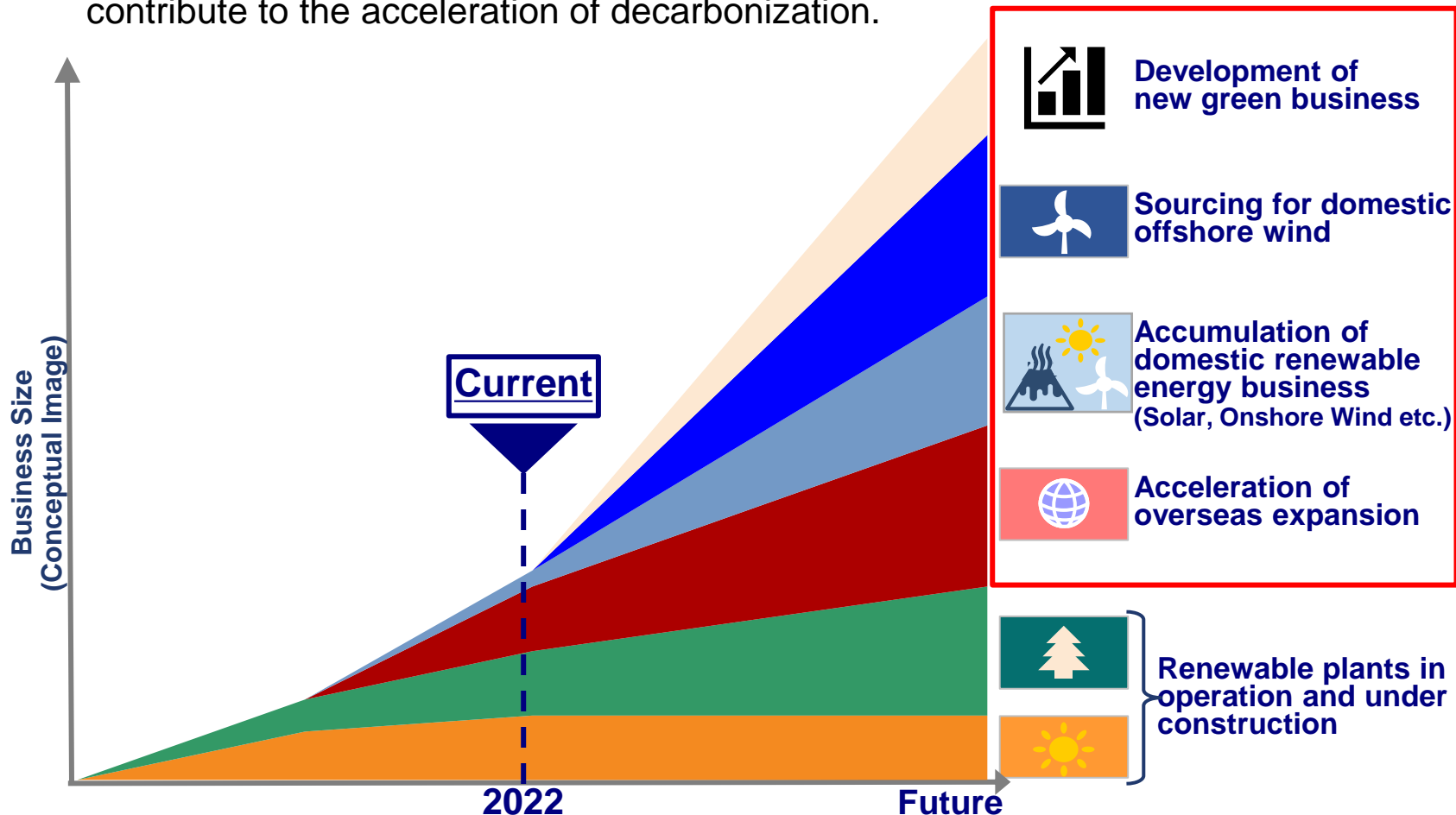
“With a mission of creating green and sustainable energy systems for a better world, RENOVA is fully dedicated to contributing to reducing CO2 emissions through the development of renewable power plants and the expansion of the scale of their operations toward decarbonization.”

Item	Actual (Cumulative total from Jan. 2014 - Mar. 2022)	Target	Target Year
Contributing to society by reducing CO2 emissions*1	Appx. 1.12 million tons	A cumulative total of 10 million tons	2030

*1 Emission Factor x Actual Power Generation (Emission coefficients used for solar and wind projects: Emission coefficients for each electric utility were used, while those for biomass power were calculated in our company based on "Working Group of the Subcommittee on New Energy, Working Group of the Subcommittee on Biomass and Sustainability, Working Group of the Subcommittee on New Energy, Working Group of the Subcommittee on Energy Conservation and New Energy, Advisory Committee on Integrated Resources and New Energy, Second Interim Arrangement")

RENOVA's Growth Trajectory

- Accelerating the development of renewable energy power plants of multiple technologies to meet the growing demand for renewable energy.
- RENOVA is also promoting the development of new green business models that contribute to the acceleration of decarbonization.



Our Mission

To create green and sustainable energy systems
for a better world

Our Vision

To become Asia's renewable energy leader

Creating our future with renewable energy.

