

# Final Investment Decision for Hai Long Offshore Wind Power Project in Taiwan



September 22, 2023

**Mitsui & Co., Ltd. (Tokyo Stock Exchange: 8031)**

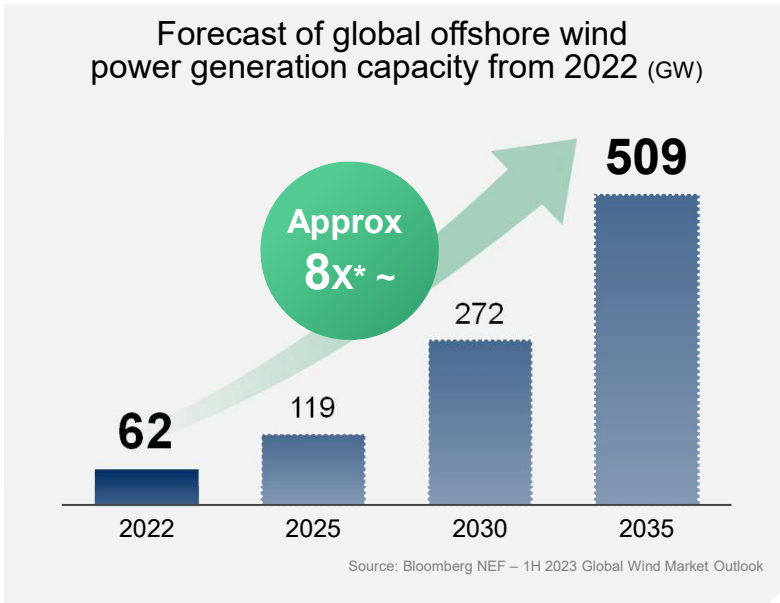
I am Takehiko Aino, General Manager of Division I (Asia) in the Infrastructure Projects Business Unit. I oversee the development and operation of infrastructure projects in Asia including Taiwan. Mr. Wakana, who is the Chief Operating Officer of the Infrastructure Projects Business Unit is unable to attend today, so I will give this briefing on his behalf. Thank you for taking time out of your busy schedules to attend today.

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We issued a timely disclosure on the Hai Long Offshore Wind Power Project in Taiwan today, and with regard to the execution of the final investment decision for this project, I would like to explain by beginning with points unique to this offshore wind power project based on the first three agenda items, followed by an explanation of Mitsui's power generation portfolio as a whole in agenda items 4 and 5.


# Overview of the Offshore Wind Power Generation Market



\* Compared with 2022

 High growth potential

Global power generation capacity to reach **509 GW** in **2035**

 Taiwan: Focusing on development

Aiming for **40 to 55 GW** by **2050**

Let me begin by providing an overview of the offshore wind power generation market.

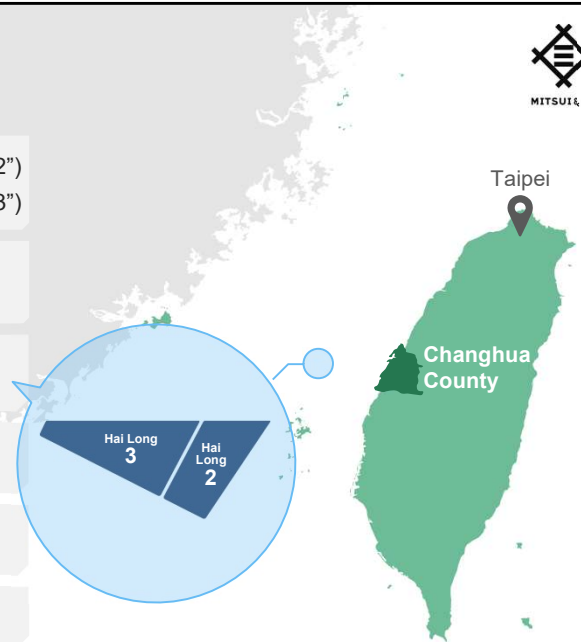
Offshore wind power generation has had a history of being mainly developed in Europe, where there are many optimal locations for development. Since then, it has gained attention as a large-scale renewable energy source as countries set targets aimed at the realization of a decarbonized society, and development has been accelerating in Asia in recent years as the technology matures.

According to an announcement by research firm Bloomberg NEF, offshore wind power generation capacity accounted for 62 gigawatts worldwide as of the end of 2022, but this is expected to expand over eightfold to reach 509 gigawatts in 2035, and is a market expected to undergo significant growth.

Within Asia, Taiwan is an area where offshore wind power development is particularly advanced, and the Taiwanese government aims to introduce 40 to 55 gigawatts of offshore wind power generation capacity by 2050.

## Project Overview 1/2

<b>Project companies</b>	Hai Long 2 Offshore Wind Power Co., Ltd. ("HL2") Hai Long 3 Offshore Wind Power Co., Ltd. ("HL3")
<b>Shareholders</b>	Northland Power Inc. ("NPI"): 60% Mitsui & Co. ("Mitsui"): 40%
<b>Project site</b>	Offshore area 45-70km off Changhua County, Taiwan (water depth: 35-55 m)
<b>Type of generation system</b>	Bottom-fixed offshore wind power plant
<b>Power generation capacity</b>	Total of 1,022 MW (HL2: 518 MW, HL3: 504 MW)
<b>Turbines used</b>	14 MW turbines x 73 units
<b>Estimated power generation</b>	Approx. 4,500 GWh per year (Equivalent of the electricity consumed annually by more than 1 million households in Taiwan)



Next, I will provide an overview of the project.

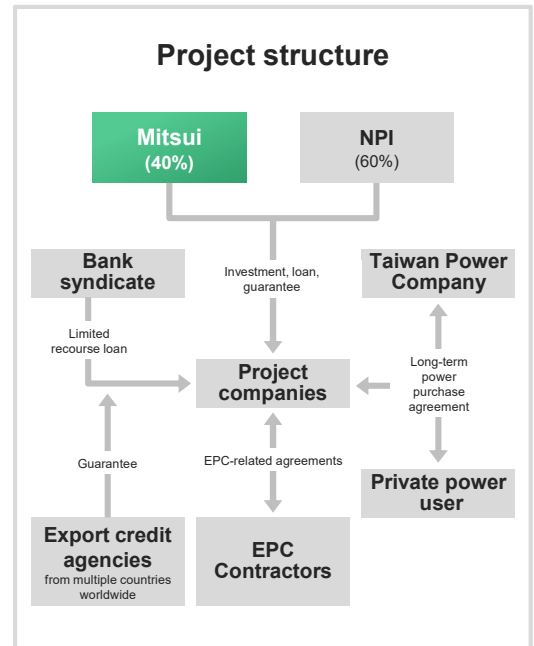
This offshore wind power plant located in the offshore area of Changhua County in Taiwan is a project that involves construction and operation, and also the sale of electricity generated here.

The plants are made up of three zones in the form of Hai Long 2A, 2B and 3. They are located 45 to 70 kilometers off the coast of Changhua County with a water depth of 35 to 55 meters, and consist of 73 wind turbines each with a generation capacity of 14-megawatts. These units will be installed with a total generation capacity of 1,022 megawatts, or approximately 1 gigawatt. This project will account for approximately 2% of the 76 gigawatts of total power generation projected in Taiwan in 2027.

The projected power generation capacity after all units commence operation is expected to be approximately 4,500 gigawatt hours per year, which is equivalent to the annual power consumption of over 1 million households in Taiwan.

## Project Overview 2/2 (As of September 22, 2023)

<b>Power Off-taker</b>	Taiwan Power Company and a private power user (S&P rating: AA-)												
<b>Power sale period</b>	20 to 30 years from start of operation												
<b>Total project cost</b>	Approx. 960 Bn yen Breakdown: <ul style="list-style-type: none"> <li>● Contribution from shareholders: Approx. 420 Bn yen (includes contributions already made) Mitsui : investments and loans of 170 Bn yen, guarantees of 90 Bn yen</li> <li>● Funding through project finance: Approx. 540 Bn yen</li> </ul>												
<b>History and schedule</b>	<table border="0"> <tr> <td>2018</td> <td rowspan="2">Project selected, participation by Mitsui</td> </tr> <tr> <td>2019</td> <td>Concluded power purchase agreement ("PPA") for HL2A (294 MW) area</td> </tr> <tr> <td>2022</td> <td>Concluded PPA for HL2B/3 (728 MW) areas</td> </tr> <tr> <td>2023</td> <td>Acquired construction permits, concluded core financing documents</td> </tr> <tr> <td>2025 end</td> <td>Planned completion of HL2</td> </tr> <tr> <td>2026 end</td> <td>Planned completion of HL3</td> </tr> </table>	2018	Project selected, participation by Mitsui	2019	Concluded power purchase agreement ("PPA") for HL2A (294 MW) area	2022	Concluded PPA for HL2B/3 (728 MW) areas	2023	Acquired construction permits, concluded core financing documents	2025 end	Planned completion of HL2	2026 end	Planned completion of HL3
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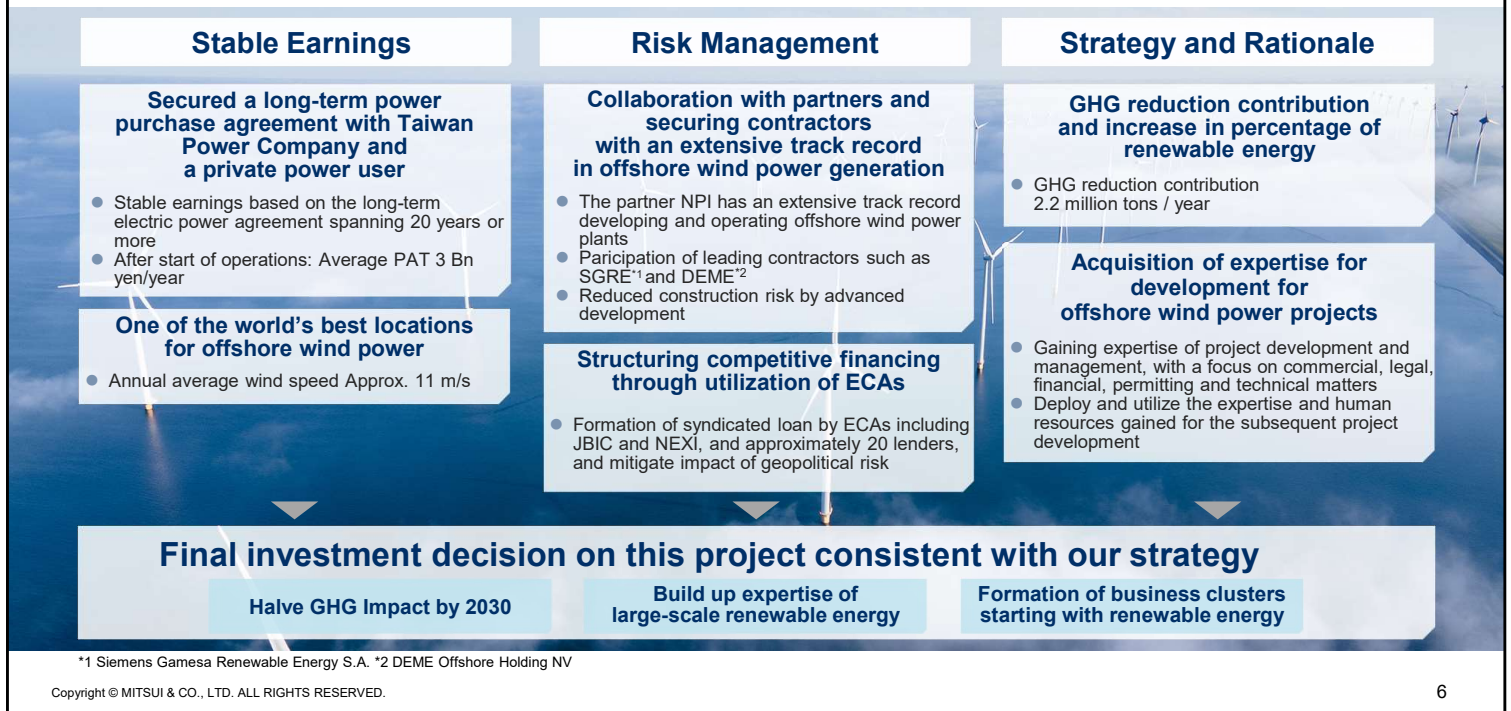
The total project cost is approximately 960 billion yen, of which approximately 540 billion yen will be raised through limited-recourse project finance. Japanese, Canadian, European and Australian export credit agencies including Japan Bank for International Cooperation and Nippon Export and Investment Insurance will participate in the project finance.

The amount of investments, loans and guarantees by Mitsui is expected to be approximately 260 billion yen including that of which has already been contributed. The breakdown is approximately 170 billion yen in investments and loans, and approximately 90 billion yen in guarantees.

The history of development of the project is as shown here. Since commencing investment in 2018, Mitsui has conducted development hand in hand with Canada-based Northland Power. We have concluded the main loan contracts for project finance for this project and made a final investment decision to take effect this year.

The construction is planned to be completed for Hai Long 2A and 2B at the end of 2025 and Hai Long 3 at the end of 2026. After that, the power generated will be sold to Taiwan Power Company, which is a state-owned electric power company, and a private power user based on long-term power purchase agreements.

# Project Features and Background



Next, I will explain the features of the project and the background that led to the final investment decision.

The first two points on the left are on expectations for the generation of stable earnings from this project.

1. The project will involve the conclusion of long-term power purchase agreements with Taiwan Power Company and a private power user for 20 and 30 years respectively, and will generate stable earnings throughout the project period. A feed-in tariff will apply to the power purchase agreement with Taiwan Power Company for Hai Long 2A, and a top-tier private user with an S&P credit rating of AA- has been secured as a buyer. After the start of operations, Mitsui's profit after tax is expected to be approximately 3 billion yen per year\*.

\*This average number includes the development and construction period since 2018, but is expected to be approximately 4 billion yen per year for the 30 years after the start of commercial operations.

2. The location of the project is suitable for offshore wind power generation with an annual average wind speed of 11 meters per second. Moreover, power will be generated efficiently by utilizing large turbines.

I will provide explanations particularly on the two following points in the middle of slide concerning risk management.

3. In this project, we will collaborate with Canada-based Northland Power, which has outstanding track record in the development and operation of offshore wind power. In addition, Spain-based Siemens Gamesa Renewable Energy, which is a major industry player, and Belgium-based DEME, which has an outstanding track record for constructing offshore wind power plants, have been hired as primary contractors. In this way, development will be conducted with excellent partners who have much experience and expertise. Also, based on the fact that a geological survey was already implemented, the main engineering, procurement, and construction (EPC) contracts have been concluded and some EPC work has been started. The risk of incurring additional costs in the future has been minimized. In addition, adequate contingency has been secured for the construction period and project costs.
4. Furthermore, institutional finance from various countries will be utilized for financing this project, as mentioned earlier. Multiple export credit agencies, such as Japan Bank for International Cooperation and Nippon Export and Investment Insurance, plan to provide guarantees and loans, and a syndicated loan will be formed by around 20 banks to create a considerable size of financing.

The final two points on the right are on strategy and rationale.

5. The project will generate power equivalent to one nuclear power plant, will provide large-scale renewable energy, and will contribute to reducing CO<sub>2</sub> emissions by approximately 2.2 million tons per year compared to the current average CO<sub>2</sub> emissions for the total generating capacity in Taiwan. The operation of a large-scale renewable energy source will contribute to improving the percentage of renewable energy in Taiwan.
6. Since Mitsui began participating in the project in 2018, we have accumulated valuable and varied expertise through project development including the dispatch of personnel, such as negotiations with the Taiwanese government and power offtakers, handling EPC and structuring of project finance. Now, we will make the transition to the full-scale construction phase, and accumulate additional expertise in construction and operation phase with the aim of connecting this to future projects.

Based on the above, we determined that this business will have the profitability to support the execution of our investment. In addition, this project matches our strategy of contributing to halving Mitsui's GHG impact by 2030, building up expertise in large-scale renewable energy development, and forming business clusters starting with renewable energy. Therefore, we reached a final investment decision for the project. I will explain Mitsui's portfolio strategy in detail from the next slide.

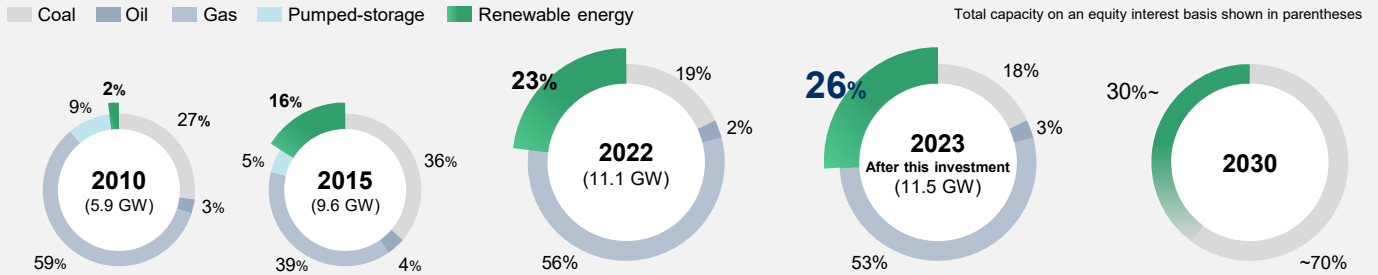


# Progress of Mitsui's Basic Strategy for the Power Generation Portfolio 1/2

Portfolio transformation and improvement in line with changing times

**Energy demand increase**  
due to economic growth  
and increasing population

**Heightened social needs for decarbonization**



GHG reduction contribution due to investment in the Hai Long offshore wind power project in Taiwan:

Entire project: **2.2 million tons / year**, Mitsui's equity interest: **0.88 million tons / year**

I will now explain Mitsui's basic strategy for the power generation portfolio and progress we have made.

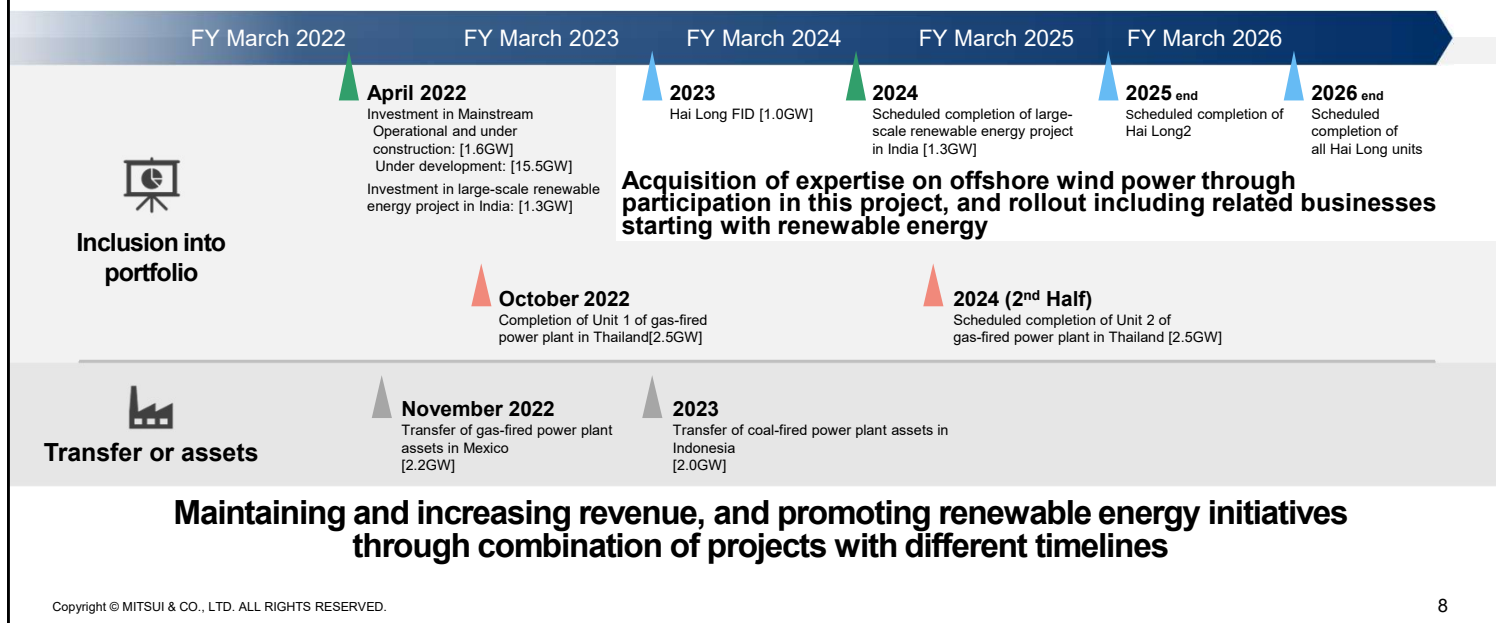
Mitsui has participated in independent power producer (IPP) projects since the 1990s, and has formed a globally diversified IPP business cluster meeting the world's increasing energy demands.

In response to rising social needs for decarbonization in recent years, we have set the target of raising the percentage of renewable energy in our power generation capacity to over 30% by 2030, and are seriously engaged in strategic asset replacement from thermal to renewable energy while maintaining and securing stable earnings. The realization of development of this offshore wind power project in Taiwan is expected to increase the percentage of renewable energy in our power business to 26%, and contribute to reducing our annual GHG emissions by almost 880,000 tons on an equity basis.

# Progress of Mitsui's Basic Strategy for the Power Generation Portfolio 2/2



## Portfolio transformation and positioning of this project



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Next, I will provide actual examples of transformation of the power generation portfolio in recent years and explain the positioning of this Taiwan project.

Mitsui has been strengthening efforts in the renewable energy business in recent years, and to accelerate these efforts, we have promoted initiatives for large-scale renewable energy projects in April 2022 such as investing in Mainstream Renewable Power, an Irish renewable energy company, and investing in large-scale renewable energy project developed by ReNew Power, an Indian renewable energy provider.

In addition, by investing in this offshore wind power project in Taiwan, we will continue to accumulate expertise on development and operation of large-scale renewable energy projects.

In terms of profitability, we will maintain and increase revenue and work to improve the quality of the power generation portfolio, by realizing and contributing to energy transition while combining projects on different timelines throughout the IPP business as a whole, and carry out asset recycling while being mindful of capital efficiency.

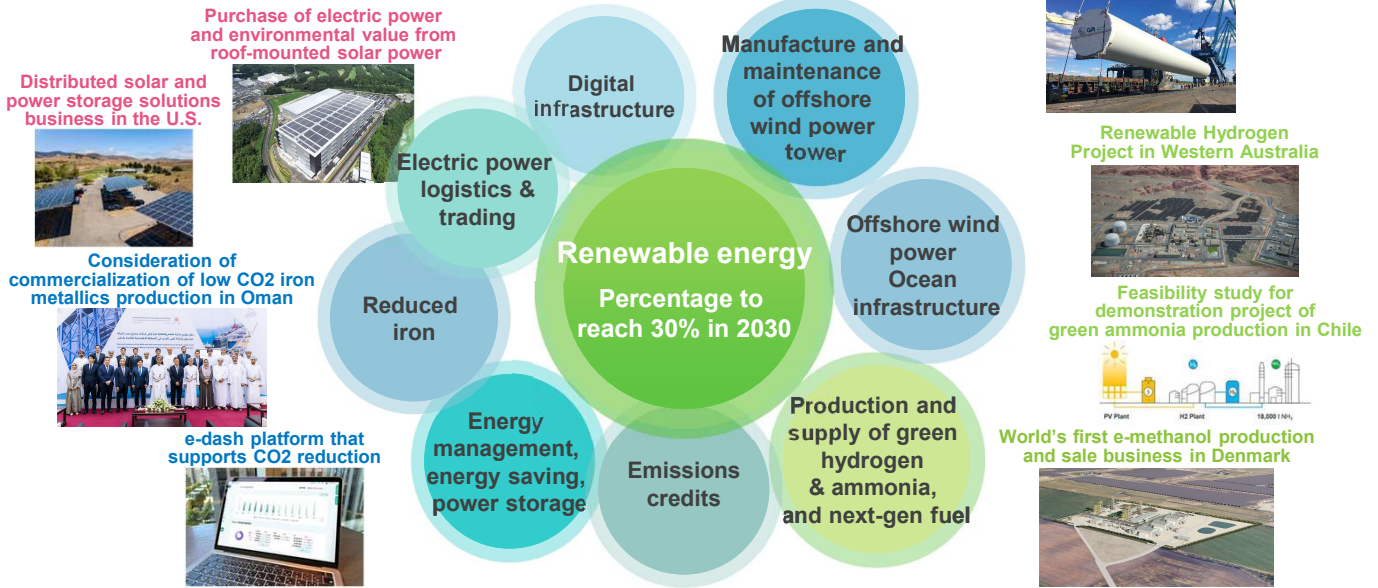
Specifically, although profits are expected to temporarily decrease due to the sale of coal-fired power plant assets, the same level of profits are expected from large-scale gas-fired power plants that have started operations. Following that,

large-scale renewable energy projects are expected to contribute to profits.

For some time, while top-tier gas-fired power plants will be the centerpiece of our stable earnings base, we will accumulate expertise on the development and operation of large-scale renewable energy projects during that period. Based on the expertise, we intend to carefully select new renewable energy projects with consideration for profitability and the significance of the initiatives for Mitsui, such as future business development. Moreover, we will proceed to form business clusters starting with renewable energy, including next-generation fuel businesses.

# Formation of Business Clusters Starting with Renewable Energy

◆ In parallel with the transformation of the power generation portfolio, Mitsui is also engaged in a variety of related businesses starting with renewable energy



Finally, I will explain the formation of business clusters starting with renewable energy.

Mitsui has established initiatives as part of Global Energy Transition, one of the three Key Strategic Initiatives announced in the new Medium-term Management Plan 2026 in May. The renewable energy projects handled by the Infrastructure Projects Business Unit are a starting point for many decarbonization businesses, and we would like to connect them to form powerful business clusters through initiatives such as electric power logistics & trading; energy management, energy-saving and power storage; digital infrastructure; and production and supply of next-generation fuels such as green hydrogen, ammonia and methanol.

Furthermore, in the rollout to other regions, we will work on offshore wind power projects in various countries, and also intend to consider initiatives for businesses such as the manufacture and maintenance services for offshore wind power towers and offshore wind power ocean infrastructure. Looking ahead, we will work with other business units through diverse approaches, and actively engage in expanding the added value of Mitsui's business clusters as a whole by leveraging the comprehensive strength of the company.

360° business innovation.



That concludes this briefing. Thank you for listening.