

COMPANY RESEARCH AND ANALYSIS REPORT

Abalance

3856

Tokyo Stock Exchange Standard Market

13-Oct.-2022

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<https://www.fisco.co.jp>

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Summary

Against the backdrop of the growth of global demand for renewable energy, set record highs in the FY6/22 results and will upwardly revise the targets in the medium-term management plan

Abalance Corporation <3856> (hereafter, also “the Company”) in the Abalance Group is a comprehensive renewable energy company that is promoting ESG and SDGs. For its mainstay solar power generation operations, the Group conducts every aspect, from planning and development through to construction, sales, maintenance, and electric power sales, and it is aiming to have a power generation capacity of 1GW by 2030. Also, in November 2020 it made a specified subsidiary of Vietnam Sunergy Joint Stock Company (hereafter, VSUN), which is a major manufacturer of solar panels modules in Vietnam, and thereby greatly expanded its business scope. With VSUN’s annual production capacity of 2.6GW, the Company enters among the top positions in the global rankings and is top class among Japanese companies. Its main sales regions are Europe and the United States, but going forward it is also looking to develop its businesses in other regions, including in South America, and plans to increase its production capacity to 8GW by 2030, which is expected to drive its consolidated results. VSUN is progressing the procedure to register for a public stock offering on the assumption of an IPO on Vietnam’s UPCoM over-the-counter market, but the Company intends to keep it as a consolidated subsidiary even after it is listed. In addition, in October 2021 the Abalance Group announced its three-year medium-term management plan (FY6/22 to FY6/24). In FY6/22, the plan’s first fiscal year, it plans to review the FY6/24 targets because the amount of sales will greatly exceed the target value in the final fiscal year due to the growth of VSUN’s results.

1. Outline of results for FY6/22

In the FY6/22 consolidated results, the amount of sales increased 243.6% year-on-year (YoY) to ¥92,435mn, operating income rose 24.7% to ¥1,697mn, ordinary income grew 19.0% to ¥1,510mn, and net income attributable to owners of the parent company increased 61.3% to ¥867mn, all of which exceeded the Company’s forecasts and broke previous records by a significant margin. The main factors behind the increase in the amount of sales were the sales of VSUN (the Solar Module Manufacturing Business), which entered the scope of consolidated from FY6/21 2Q, grew 289.2% YoY to ¥81,775mn, and also the strong performance of the Green Energy Business in which sales increased 92.7% to ¥10,234mn, including from the effects of M&A. In profits, due to the soaring costs of solar panel parts and maritime transportation during the novel coronavirus pandemic (hereafter, COVID-19), the Solar Module Manufacturing Business’ segment income margin temporarily declined. But from the 3Q onwards, the effects of transferring cost increases onto prices appeared, and in this business, operating income increased 69.3% YoY to ¥1,238mn. In the Green Energy Business as well, operating income increased 19.7% to ¥1,204mn, and in such ways profits were driven by the main businesses.

2. Outlook for FY6/23

The forecasts for the FY6/23 consolidated results are that the amount of sales will increase 19.0% YoY to ¥110,000mn, operating income will grow 70.8% to ¥2,900mn, ordinary income will rise 86.0% to ¥2,810mn, and net income attributable to owners of the parent company will increase 47.6% to ¥1,280mn. In the Solar Module Manufacturing Business, the amount of sales is forecast to increase 22.3% YoY to ¥100,000mn due to the strong orders, while segment income is also expected to improve to a certain level because of the various initiatives, including to improve production efficiency and to transfer cost increases onto prices. In FY6/22 4Q, the amount of sales was ¥32,200mn and the segment income margin was 2.5%, and in terms of the recent order conditions, there have been many inquiries from Europe, so it seems highly likely that results will be higher than the Company's forecasts. The Green Energy Business is converting to a stock (recurring income) business model, and stock sales are forecast to increase to a level above ¥3,000mn, including due to revenue from electric power sales from the Company's own developments and M&A.

3. Progress made in the medium-term management plan and the growth strategy

In October 2021, the Company announced its three-year medium-term management plan to run up to FY6/24. It has positioned this period as the runway period for its aim of becoming "a core global renewable energy group," which is its 2030 Group Vision, and with the Solar Module Manufacturing Business and the Green Energy Business as its growth engines, its policy is to aim to maximize the Group's sustainable growth and enterprise value. The plan's results targets for FY6/24 are amount of sales of ¥59.0bn, operating income of ¥3.6bn, and ordinary income of ¥3.1bn. But the Solar Module Manufacturing Business has grown rapidly at a pace higher than initially anticipated, so the amount of sales exceeded the target for the final fiscal year in the plan's first year. Therefore, in the future the Company plans to quickly announce revised results targets. Against the backdrop of the strong demand in the Solar Module Manufacturing Business, it plans to progress the strengthening of capacity ahead of schedule, and it seems possible that it will further raise-up the initial target of 3.6GW (currently 2.6 GW). The establishment of a stable earnings foundation from revenue from electric power sales is the most important strategy in the 2030 Group Vision. It is considered that the Company will accelerate the speed of growth through conducting large-scale M&A, in addition to building its own power plants, and it is aiming to secure power generation capacity of 150MW by FY6/24. It has indicated that it intends to work on the following points as its policies to improve enterprise value in the medium to long term.

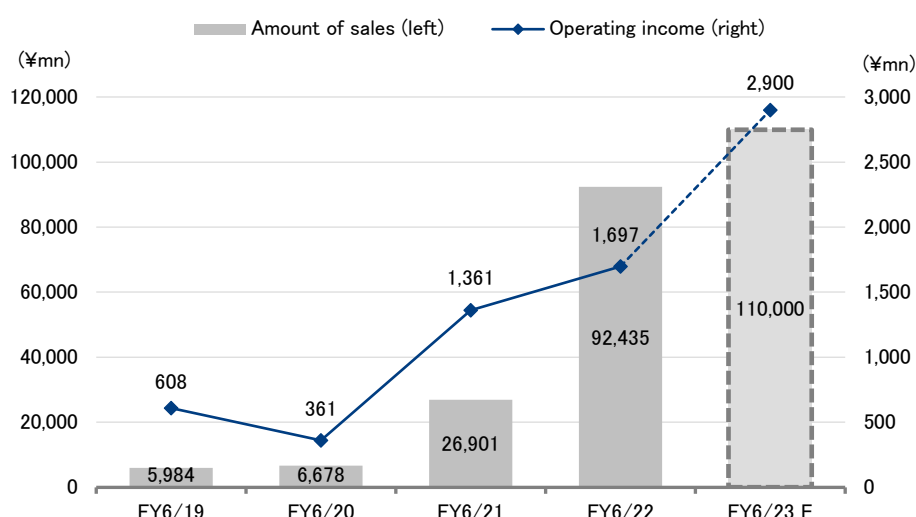
- Grow VSUN's results, achieve sustainable growth, and improve the profit margin
- Strengthen applications for self-consumption projects (non-FIT and non-farm), promote solar sharing, and appeal to companies (SBT, RE100, etc.) and local governments aiming for decarbonization about new business opportunities and present them with solutions
- Conduct M&A, mainly in the renewable energy field, and secure various fundraising methods
- Improve the equity ratio in a planned manner (achieve financial soundness)
- Register VSUN on the public stock offering system toward its IPO on Vietnam's UPCoM over-the-counter market
- Disclose information with an awareness of the ESG rating score (TCFD*) and expand disclosure of English materials
- Progress strategic partnerships and collaborations with leading companies, comprehensive trading companies, etc.
- Change the listing designation to the Prime Market etc.

* The TCFD (the Task Force on Climate-related Financial Disclosures) recommends that companies disclose information on their governance, strategies, risk management, indicators and targets so that investors can make appropriate investment decisions.

Key Points

- Is a comprehensive renewable energy company in the Abalance Group whose main businesses are the Green Energy Business and the Solar Module Manufacturing Business, while VSUN's panel manufacturing capability is top class among Japanese-affiliated companies
- In the FY6/22 results, achieved greatly improved new record highs from the growth of the 2 mainstay businesses
- In FY6/23, results are highly likely to exceed the Company's forecasts as long as there are no dramatic changes in the external environment
- Is making progress at a pace significantly higher than anticipated for the medium-term results targets up to FY6/24 and plans to upwardly revise the targets

Results trends



Source: Prepared by FISCO from the Company's financial results

Company profile

From an IT company to a comprehensive renewable energy company

1. History

The Company was established in April 2000 as an IT company in order to develop and manage internet services and to provide knowledge management solutions to companies. In September 2007, it was listed on the TSE Mothers market (currently listed on the TSE Standard Market), and it used the funds raised from this to acquire overseas IT companies with the aim of growing its businesses. However, following the deterioration of results in the fall of 2008 due to the Lehman Shock, by June 2011 it had sold all of its overseas IT Business.

Company profile

In November 2011, the Company made WWB Co., Ltd., which conducted purchase sales of construction machinery and a green energy business, a wholly owned subsidiary through an exchange of shares. Using this opportunity, it has been subsequently expanding its businesses centered on the Green Energy Business. In March 2017, it made a wholly owned subsidiary of VALORS Corporation, which conducts a business of lot sales of solar power plants, and then in January 2019, WWB made a subsidiary of Kon Corporation (currently, Japan Photocatalyst Center Corporation), which develops, manufactures, and sells photocatalytic titanium oxide coating agent and related products. Also, in October 2019 with aims including to respond flexibly to market changes specific to the IT industry, the Company split-off the IT Business, which conducted one of its businesses, and established Abit Corporation. Moreover, in November 2020 it made a consolidated subsidiary of its equity-method affiliate FUJI SOLAR Corporation, through which this company's subsidiary VSUN, a major manufacturer of solar panel modules in Vietnam, also became the Group's consolidated subsidiary.

In 2021 also, one after another the Company newly established PV Repower Corp. in March in order to enter into the solar panel reuse and recycling market and Birdy Fuel Cells LLC in June in order to develop a hydrogen energy storage system, and it is expanding its business areas in the green energy market. It is also actively progressing M&A, including of companies operating solar power plants, in order to expand the electric power sales business as a stable source of earnings.

In March 2022, Abit made a subsidiary of Digital Sign Co., Ltd., which develops electronic authentication technologies and dispatches IT engineers, while the Company conducted a tender offer of the shares of Meiji Machine Co., Ltd.<6334> and made it an equity-method affiliate at the same time as concluding with it a capital and business partnership agreement. Meiji Machine is the biggest company in the powdering equipment industry and has a wide customer base in the agricultural field. The Company's strategy is to create synergies through the partnership with it, including to strengthen sales of solar sharing systems (farm-type solar power generation systems), increase sales of machinery for the whole of the Southeast Asia region, and utilize photocatalysts for the safe and hygienic operations of pig and poultry farms. Following the reorganization of the Tokyo Stock Exchange (TSE) market categories in April 2022, the Company was transferred to the Standard Market. But it is aiming to be listed on the Prime Market at an early stage, as this will strengthen its ability to recruit human resources and improve its enterprise value in the medium to long term.

Takes an ESG perspective and contributes to SDGs through its businesses

2. Initiatives for ESG and SDGs

The Company intends for the Green Energy Business to help realize a sustainable decarbonized society, so it is developing it alongside the trends in SDGs. By 2030, it is targeting owning power plants with a power generation capacity of 1GW (equals 1,000MW, which corresponds to the power generated by one nuclear power plant) as the total of its domestic and overseas power plants, and it intends to contribute to a reduction in CO₂ in order to prevent global warming. By progressing the Green Energy Business, it will be able to contribute to SDG No.7 (Ensure access to affordable, reliable, sustainable and modern energy for all), SDG No.11 (Make cities and human settlements inclusive, safe, resilient and sustainable), and SDG No.13 (Take urgent action to combat climate change and its impacts). In the overseas business, starting with VSUN's Solar Module Manufacturing Business, the Group is involved in multiple projects to respond to demand for electric power in Southeast Asian countries. The delivery of green energy to Southeast Asia has significance as an important international contribution on the points of supporting the region's infrastructure and societal living. There are some environments that are located away from urban areas that become dark when the sun goes down, and the Company has explained that it wants to deliver light through green energy to these regions. Initiatives for ESG are in line with the Abalance Group's philosophy and it is actively incorporating an ESG perspective into its management strategy, as well as appointing SDGs experts as outside directors.

In order to reduce CO₂ and to prevent global warming



- Promoting the spread of solar power generation in Southeast Asia
- Applied for and was selected as a representative business in the public call for projects for the FY2019 Facilities Subsidy Projects Among Joint Crediting Mechanism Financial Support Projects implemented by the Ministry of the Environment
- Promoting (onshore, small-scale) wind power generation business
- Started the development of an energy storage system that utilizes hydrogen (Birdy Fuel Cells LLC)
- Started a solar panel reuse and recycling business (PV Repower Corp.)
- Developed in-house Rakudenkun, which can be used by households as a power supply at the time of a disaster (donations to Hitoyoshi City in Kumamoto Prefecture, Kobayashi City and Ebino City in Miyazaki Prefecture, Kakuda City in Miyagi Prefecture, and Motomiya City in Fukushima Prefecture, etc.)

Source: prepared by FISCO from the Company's materials

The Ho Chi Minh Plant Roof Project



Source: The Company's results briefing materials

Donation of solar power facilities to Warren City, Cambodia



Source: The Company's press release

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Company profile

WWB has a reputation for developing new products. It is able to conduct an agriculture business at the same time as a power generation business, and its solar sharing method, in which it installs pillars in farmland and solar power generation facilities at on-ground spaces, is contributing to the stabilization of agricultural management, the development of business successors, and the elimination of idle farmland. For these reasons, solar sharing is positioned as a business to focus on in the future. Also, in recent years there has been frequent wind and rain damage due to large-scale typhoons and alongside this, power cuts have also occurred. In response to this, it has developed and is selling Rakudenkun, which is a portable battery comprised of a set of optimized folding lightweight modules that can be used by households as a power supply at the time of a disaster. Inquiries are increasing in preparation for times of need, such as from local governments that are working on disaster measures, while the Company also donated it to Hitoyoshi City in Kumamoto Prefecture, Kobayashi City and Ebino City in Miyazaki Prefecture, Kakuda City in Miyagi Prefecture, and Motomiya City in Fukushima Prefecture.

Solar sharing case study



Source: The Company's materials

The portable battery developed in-house

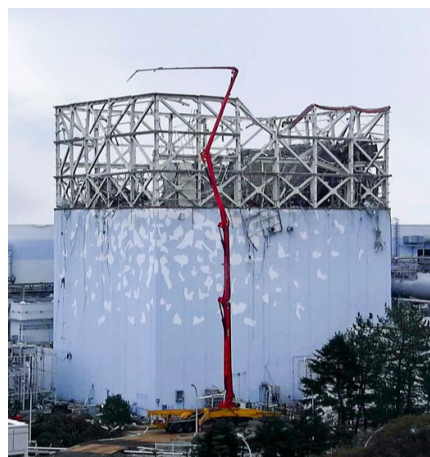


Source: The Company's press release

Following the accident at the Fukushima Daiichi Nuclear Power Plant due to the Great East Japan Earthquake in March 2011, it collaborated in the donation of a large-scale concrete pump vehicle (common name: the large giraffe) manufactured by SANY*. Currently, WWB still provides services free of charge, including maintenance work and exchanges of parts.

* SANY is a Chinese global construction machinery manufacture that competes with companies including Caterpillar of the US and Komatsu. WWB is its official agency in Japan.

Collaborated to donate a concrete pump vehicle to the Fukushima Daiichi Nuclear Power Plant



Note: the 62-meter pump vehicle was transferred from the Port of Shanghai to Fukushima with the permission of the Japanese government due to height restrictions in Japan.

Source: The Company's materials

We encourage readers to review our complete legal statement on "Disclaimer" page.

A comprehensive renewable energy company whose two business pillars are the Green Energy Business and the Solar Module Manufacturing Business

3. Business description

The Abalance Group is a comprehensive group of renewable energy companies whose main businesses are the Green Energy Business and the Solar Module Manufacturing Business that was newly added in FY6/21 2Q. Centered on the Green Energy Business (which includes sales and ownership of solar power plants and the overseas business) and the Solar Module Manufacturing Business (Vietnam), it has a top-class position among Japanese companies in the solar panel manufacturing field. It also conducts the Photocatalyst Business, IT Business, and Construction Machinery Business, and it is leveraging unique synergies.

(1) Green Energy Business

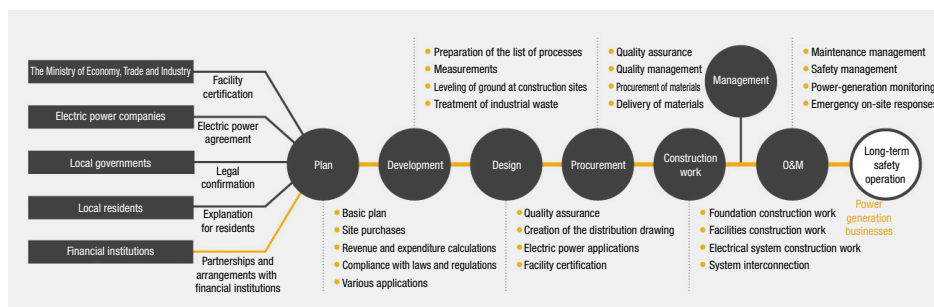
The Abalance Group provides unified, vertically integrated-type one-stop solutions for solar power generation, from planning and development through to construction and O&M^{*1}. In recent years, with the aim of strengthening a stable earnings foundation through a stock (recurring income) type business model, it has worked to increase revenue from electric power sales through building its own power plants. In addition, it conducts businesses including purchase sales of solar panels and related products (power conditioners (hereafter, PCS), storage batteries, etc.) and solar power plant sales (including pre-owned projects). It is also conducting other businesses, including an EPC business^{*2} and an IPP business^{*3}, including by establishing joint ventures with local companies in areas where energy demand is strong, such as in the South East Asia region and Taiwan.

^{*1} O&M (Operations & Maintenance): maintenance and management services for solar power generation facilities, etc. It includes ascertaining and monitoring daily power generation conditions, including from data analysis; maintaining equipment performance through regular inspections; the early detection of accidents; and replacing parts and equipment in a timely manner.

^{*2} An EPC business is a business for the outsourcing of construction work projects that includes E (Engineering), P (Procurement), and C (Construction).

^{*3} An IPP (Independent Power Producer) business refers to a business of conducting wholesales to electric power companies of the electric power generated by a company's own power generation facilities.

Vertical-integration business model



Source: The Company's website

Company profile

The Group's customers include domestic and overseas IPP businesses that own solar power plants, companies conducting wholesales of household-use solar panels and related products, general business companies, and public organizations (such as those installing solar panels). The solar panels are sold under the Group's own Maxar® brand. The performance and price of Maxar brand panels is comparable to the panels of major Chinese manufacturers and its lineup also includes products that are superior in terms of conversion efficiency. It procures PCS from a highly reliable major manufacturer, while its in-house development team jointly develops storage batteries with a major Chinese manufacturer. The power plant construction areas are in almost all areas of Japan, from Hokkaido and Tohoku to the Kanto area, mainly Chiba, and also the Kinki and Kyushu areas. WWB is mainly involved in the East Japan area and VALORS in the Kyushu area.

Kakuda City Solar Power Plant
(WWB development)



Kunisaki Solar Power Plant
(VALORS development)



Source: The Company's materials

In addition, in the storage battery business as well, the Company's approach is to launch industrial and home-use storage batteries. It is a pioneer in this area and developed itself the Rakudenkun portable battery, which is a set of lightweight, foldable modules, launching its sales in October 2019. In March 2021, it newly established PV Repower to conduct a reuse and recycling business in order to contribute to solving the solar panel waste disposal problem. Moreover, it also newly established Birdy Fuel Cells as a global innovation company with the goal of levelling-out intermittent green energy, and this company is working on the development of a hydrogen energy storage system that is expected to be a new energy of the future.

In the overseas business, the Group is involved in multiple projects in response to local demand for electric power in Southeast Asian countries. The delivery of green energy to Southeast Asia has significance as an important international contribution on the points of supporting the region's infrastructure and societal living. There are some environments that are located away from urban areas that become dark when the sun goes down, and the Company has explained that it wants to deliver light through green energy to these regions. In June 2022, WWB announced that it had installed roof-type solar power generation facilities (panels manufactured by VSUN, power generation capacity corresponding to 1MW) at Da Nang Mikazuki Japanese Resort and Spa (Vietnam), a multi-complex resort operated by the Hotel Mikazuki Group.

(2) Solar Module Manufacturing Business

The Solar Module Manufacturing Business is the business of VSUN, a Vietnamese solar panel modules manufacturer that newly became a consolidated subsidiary from the FY6/21 2Q. VSUN was established in June 2015 as a subsidiary of FUJI SOLAR. It has developed while acquiring the expertise of Japanese engineers and it has grown to the extent that today, it has an annual production capacity of 2.6GW. Its production volume is top ranked globally and it is top class among Japanese-affiliated companies. When it first launched the business, it exported mainly to Europe, but in recent years it has expand exports to the United States as well and has been growing.

Company profile

Also, VSUN's products are manufactured on an advanced automated production line based on a quality control system originating in Japan, and they have been highly evaluated by external evaluation organizations both for quality and reliability. Specifically, in the APAC Business Awards held by APAC Insider, a UK global media company, it won the Best International PV Solar Manufacturer-Asia Pacific Award (announced on January 20, 2022). Also, PV Evolution Labs, which is an organization that tests the reliability and performance of solar modules, the same as in the previous year it certified it as one of the "top performer" companies in its PV Modules Reliability Scorecard (2022 edition), which is its report summarizing the results of testing on module reliability (announced on May 30, 2022).

The Company intends to acquire capital investment funds, secure excellent human resources, and improve brand power in order to respond to the growth of demand in the future, and it is aiming for VSUN's shares to be listed on Vietnam's UPCoM over-the-counter market. The current situation is that it has submitted the necessary documents to the Vietnamese authorities to be registered in the public offering company system in Vietnam's securities exchange law, which is a prerequisite to be listed on the stock market, and currently the stage is the review of documents by the authorities. The Company plans for it to be listed on the UPCoM over-the-counter market at an early stage and after that, for its listing to be changed and designated to the Ho Chi Minh Securities Market and the Hanoi Securities Market, and it is considering IPO for the securities markets of other countries as well.

Looking at VSUN's current capital configuration, it is owned indirectly through FUJI SOLAR, which is WWB's subsidiary, and the actual ownership ratio is approximately 43% and the remainder is non-controlling interests. But the Company's policy is to continue to maintain it as consolidated subsidiary even after it is listed.

(3) IT Business

The IT Business provides various services, including KnowledgeMarket® by the subsidiary Abit, which is an information sharing and knowledge management tool to support improved work efficiency in companies, a DX support service that utilizes Microsoft 365, and also other services that use RPA products to improve efficiency and to save labor. In March 2022, Abit acquired all of the shares and made a subsidiary of Digital Sign, which is an IT solutions company whose strengths include electronic authentication technologies. Through this acquisition, the policy is to develop and provide services that utilize Digital Sign's strength of data security technologies and also to expand the mutual value chain and grow the business.

(4) Photocatalyst Business

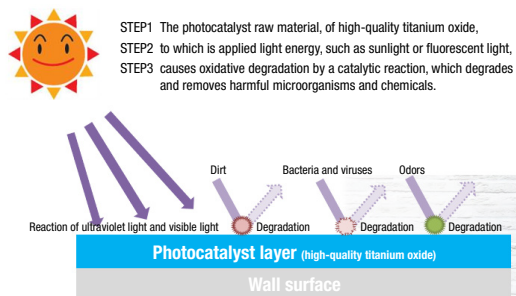
The Photocatalyst Business is mainly the business of the subsidiary Japan Photocatalyst Center, which primarily manufactures and sells a photocatalytic titanium oxide coating agent and the products that use it. Photocatalyst refers to a process in which when applying light energy, such as sunlight or fluorescent light, to the agent, oxidative decomposition by a catalytic reaction occurs on the surface of the object to which the agent is applied, which has the effect of degrading and removing harmful microorganisms and chemicals. Utilizing this principle, applying the photocatalytic titanium oxide coating agent to the target object makes possible various effects, including an antifouling function, an air cleaning function, air purification, a deodorizing function, measures to counter sick house syndrome, and also antibacterial, antifungal, and antiviral functions.

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Company profile

The mechanism of Japan Photocatalyst Center's photocatalyst



Source: Materials provided by the Company and prepared by FISCO

Performance differences with conventional products, such as disinfectants

- It is composed only of water and titanium oxide, and after drying, the titanium oxide component alone becomes the photocatalyst film. Therefore, self-deterioration does not occur compared to general, conventional products, and photocatalyst activity is high
- If there is light, it will work for all bacteria, viruses, and even pollen, and it demonstrates space-purifying effects for nearby attached objects
- If applied only once, its effects are semi-permanent
- Its antibacterial and antiviral effects are 99.9%

The Company has been selling products utilizing this photocatalyst function for building materials, such as for store exterior walls and fronts, for rooms in hospitals and welfare facilities, and for toilets and bathrooms. But due to COVID-19, attention has focused on its antibacterial and antiviral functions, which are one photocatalyst effect, and from March 2020, Japan Photocatalyst Center began sales of blockIN, an antibacterial and antiviral product, as an anti-infection product.

Also, in 2020, it launched the Photocatalyst LIFE business, which provides antibacterial and antiviral construction services to medical and nursing care facilities, hotels, schools, nursery schools, public facilities, food processing plants, restaurants, and karaoke boxes. It has started developing the business through sales agencies and franchisees (hereafter, FC), and currently it has more than 100 agencies or FCs with which it has concluded agreements. In March 2022, it announced a business partnership with ANEST IWATA Corporation <6381> and its subsidiary A&C Service Corporation to jointly develop construction machinery and materials such as spray guns for photocatalytic coating. The main raw materials of Japan Photocatalyst Center's photocatalyst are water and titanium oxide so it is a creative technology that does not include chemical substances, and its main strengths include high antibacterial and antiviral effects, deodorizing effects, and that its effects are sustained over a long period. It has been highly evaluated for its strong performance and has been used in well-known sports facilities and large-scale accommodations.

(5) Construction Machinery Business

WWB conducts sales and rental leases of construction machinery in Japan and in South East Asia. A strength is that it handles used machinery, and it is the official agency of SANY of China, a global construction machinery manufacturer, and of SUNWORD. Its customers include domestic and overseas construction companies, civil engineering companies, logistics-related companies, and import-export sales companies. It recently acquired an order from a Japanese general contractor company entering-into South East Asia for an ODA project, and it is also progressing collaborations between businesses, including the use of machinery at the construction sites of solar power generation projects. WWB, has delivered three top lifters to the Oi. No.5 Container Terminal (CT) at Tokyo Harbor, and going forward, it plans to continue responding quickly to port-related demand.

Company profile

A top lifter manufactured by SANY



Delivery of a top lifter



Source: The Company's materials

Has manufacturing bases overseas and a strength is that provides one stop solutions globally

4. The Abalance Group's strengths

(1) Formation of a global supply chain and a one-stop solution

Solar power generation has a wide base and a long supply chain, so in the industry it is difficult for a single company to prepare a full set of power generation facilities. In this situation, the Company has acquired solar panel manufacturing and sales functions by making VSUN of Vietnam a specified subsidiary. This enables it to provide a one-stop solution, from planning through to procurement of power generation systems, design and construction contract work, and operations and maintenance. So even if disturbances occur in the international supply chain, as it has a manufacturing function it can be said to have a competitive advantage for securing solar panels compared to other companies. It has also launched a panel reuse and recycling business to contribute to solving the problem of the disposal of the large volume of waste solar panels.

(2) Unique synergies

What has made possible the overseas advances of the Solar Module Manufacturing Business and the Green Energy Business, which have been accelerating in recent years, is utilizing the Group's expertise in advancing into overseas markets that it cultivated over many years in the Construction Machinery Sales Business. WWB has an expansive overseas network, which can be said to be a strength that other companies do not possess. In addition, the utilization of data on solar power plants' operations and power generation and expertise in remote monitoring systems to ascertain the local conditions in a timely manner were created in the IT Business. In the Company's capital and business partnership with Meiji Machine, they will work to create synergies in the future to 1) strengthen sales of solar sharing systems, 2) increase sales of machinery for the whole of the Southeast Asia region, 3) and utilize photocatalysts for the safe and hygienic operations of pig and poultry farms, and it appears that on entering FY6/23, developments have started for specific projects.

(3) A revolving cycle of sustainable investment

The revenue from electric power sales from the solar power plants that are owned by the Company in order to secure stable revenue from sales of electric power is expected to continue growing in the future as the number of power plants owned by the Company is increased. Also, management fees from O&M (it has a management track record of more than 1,000 projects in total) will become a stable source of earnings in the medium- to long-term. Using the cash flow generated from these businesses as the source of funds, the Company will be able to develop new power plants, conduct M&A, and invest in overseas projects. It is considered that the rotating cycle of sustainable investment in this form will contribute to improving its enterprise value in the medium- to long-term.

(4) Regional dispersion of sources of earnings

The Group is developing the Solar Module Manufacturing Business, the Green Energy Business, and the Construction Machinery Sales Business not only within Japan, but widely overseas as well. Overseas, it has sales channels in Europe, the United States, and South America, and in addition, it is actively conducting upfront investment in order to grow the overseas business, particularly in Asia, which will contribute to hedging risk by the regional diversification of revenue sources, as well as hedging country risk and exchange-rate risk. In Japan, the Company is securing stable earnings and sources of cash flow by growing the stock (recurring income) business through building and owning its own solar power plants.

(5) Product development capabilities

The Rakudenkun portable battery developed by WWB is equipped with folding solar panels that enable it to be charged outdoors, and it can also be used while it is charging. The battery is equipped with a lithium ion that has competitive advantages not only in terms of quality, but also for price.

For next-generation energy-related R&D by Birdy Fuel Cells, by 2024 the vision is to provide an option that will enable the electric energy obtained by solar power generation to be stored as power supply for 7 days or more for the same price as solar panels.

In addition, the spray-type photocatalyst antibacterial and antiviral solution blockIN developed by Japan Photocatalyst Center utilizes the photocatalyst function of titanium oxide, its main component, and light irradiation to oxidatively decompose every type of bacteria, virus, and harmful organic compound. Its features include the effective removal of unpleasant odors, such as of tobacco, and the effects are sustained over a long period.

Industry environment

Toward decarbonization, the outlook is that demand for solar power generation will continue to increase in Japan and overseas

According to the 6th Energy Basic Plan resolved on by the Cabinet of the Japanese government in October 2021, the target for the renewable energy introduction ratio in the power supply composition ratios is to increase it from 18% in FY2019 to from 36% to 38% in FY2030, which is an upward revision from the previous target (22% to 24%). Of this percentage, the target for the amount from the introduction of solar power generation facilities is to approximately double it, from 55.8GW in FY2019 to from 103.5 to 117.6GW in FY2030. As a measure to achieve the target in a situation in which there are few plants corresponding to mega solar power plants, based on the revised Law Concerning the Promotion of Measures to Cope with Global Warming, the government will provide support for positive zoning (an initiative to establish renewable energy promotion special zones and to positively form projects) and for planning formulation by local governments with the aim of promoting introductions into public facilities and other locations. The Company is targeting 1GW as the capacity of its own solar power plants, which would be approximately a 1% share of solar power generation.

Power supply composition ratio in Japan

	2019	Previous target	2030 target (ambitious outlook)
Renewable energy	18%	22% to 24%	36% to 38%*
Hydrogen and ammonia	0%	0%	1%
Nuclear power	6%	20% to 22%	20% to 22%
LNG	37%	27%	20%
Coal	32%	26%	19%
Oil, etc.	7%	3%	2%
Greenhouse gases reduction ratio	14%	26%	46%
Amount from introduction of solar power generation facilities	55.8GW	64GW	103.5 to 117.6GW

* If progress is made in utilizing and implementing the results of the R&D into renewable energy currently being worked on, is aiming for higher than 38%.

Source: Agency for Natural Resources and Energy's Summary of the 6th Energy Basic Plan and Energy Demand Outlook for FY2030 (announced in October 2021)

On the other hand, in the overseas markets, it was announced that toward realizing carbon neutrality in Europe, 1 trillion euros would be invested as the total of the public and private sectors in the next 10 years. But subsequently, energy prices soared due to the restrictions on the supply of oil and gas by Russia, triggered by the Ukraine crisis, and the situation is that as an alternative, investment in renewable energy, including in solar power generation, is accelerating even more. In the United States as well, the Biden government has set the targets of reducing greenhouses gases by 50% to 52% in 2030 compared to in 2005 and achieving carbon neutrality by 2050. In September 2021, the US Department of Energy announced its estimate that in order to achieve the decarbonization of the electric power sector by 2035, it would be necessary to increase the percentage of total electric power supplied by solar power generation facilities from the current percentage of approximately 3% to around 40%. To achieve this target, it will be necessary to strengthen solar power generation on pace of 30GW a year by 2025 and 60GW a year in the period from 2025 to 2030. Therefore, in the US market as well, demand for solar panels is likely to grow even more in the future.

These developments in Japan and overseas are expected to be extremely advantageous for the earnings growth of the Company, which is conducting the Solar Module Manufacturing Business and the Green Energy Business.

Results trends

In the FY6/22 results, achieved greatly improved new record highs from the growth of the 2 mainstay businesses

1. Outline of results for FY6/22

In the FY6/22 consolidated results, the amount of sales increased 243.6% YoY to ¥92,435mn, operating income rose 24.7% to ¥1,697mn, ordinary income grew 19.0% to ¥1,510mn, and net income attributable to owners of the parent company increased 61.3% to ¥867mn, all of which exceeded the Company's forecasts and broke previous records by a significant margin. The operating income margin declined from 5.1% in the previous period to 1.8%, but this was because the Solar Module Manufacturing Business' profit margin declined due to the soaring costs of solar panel parts and maritime transportation during the COVID-19 pandemic, and also because of the change in the sales composition ratio in the Green Energy Business and the increases in amortization of goodwill and depreciation. EBITDA (earnings before interest, taxes, depreciation, and amortization) increased 59.0% YoY to ¥3,309mn.

Consolidated results for FY6/22

	FY6/21		Company forecasts*1	FY6/22			
	Results	% of amount of sales		Results	% of amount of sales	YoY	vs. forecast
Amount of sales	26,901	-	70,000	92,435	-	243.6%	32.1%
Cost of sales	22,112	82.2%	-	82,729	89.5%	274.1%	-
SG&A expenses	3,427	12.7%	-	8,007	8.7%	133.6%	-
Operating income	1,361	5.1%	1,400	1,697	1.8%	24.7%	21.2%
Ordinary income	1,269	4.7%	1,430	1,510	1.6%	19.0%	5.6%
Extraordinary income/loss	-15	-	-	750	-	-	-
Net income attributable to owners of the parent company	537	2.0%	858	867	0.9%	61.3%	1.0%
EBITDA*2	2,081	7.7%	-	3,309	3.6%	59.0%	-

*1 The Company forecasts are the values announced in May 2022.

*2 EBITDA=operating income + depreciation + amortization of goodwill.

Source: Prepared by FISCO from the Company's financial results

Results by business segment

Amount of sales	FY6/20				Growth rate
	FY6/20	FY6/21	FY6/22		
Solar Module Manufacturing Business	-	21,013	81,775	289.2%	
Green Energy Business	6,248	5,311	10,234	92.7%	
IT Business	58	61	292	375.4%	
Photocatalyst Business	112	177	80	-54.8%	
Others	257	355	326	-8.2%	
Adjustment amount	-	-16	-274	-	
Total	6,678	26,901	92,435	243.6%	

Segment income	FY6/20				Growth rate
	FY6/20	FY6/21	FY6/22		
Solar Module Manufacturing Business	-	731	1,238	69.3%	
Green Energy Business	817	1,005	1,204	19.7%	
IT Business	-40	16	7	-54.0%	
Photocatalyst Business	-6	32	-17	-	
Others	-49	-54	-45	-	
Adjustment amount	-359	-370	-689	-	
Total	361	1,361	1,697	24.7%	

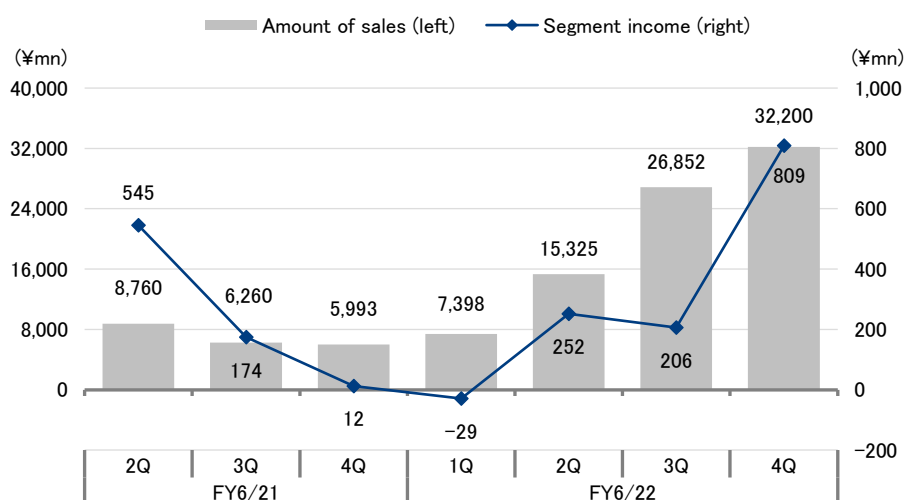
Source: Prepared by FISCO from the Company's financial results

Results trends

(1) Solar Module Manufacturing Business

Against the backdrop of the strong demand for solar power generation in the European and US markets, sales and profits increased significantly in the Solar Module Manufacturing Business, with the amount of sales increasing 289.2% YoY to ¥81,775mn and segment income rising 69.3% to ¥1,238mn. In the 1Q at the production base in Vietnam, the lockdown implemented due to COVID-19 had a partial effect on plant operations and product shipments, so the growth of the amount of sales was sluggish. But from the 2Q onwards following the lifting of the lockdown, plant operations and the product shipment system gradually recovered, and then from the 3Q onwards, sales of solar panels grew significantly, including because the energy shortage in the European market became more serious due to the Ukraine crisis. In the 4Q, a slight recovery in the global supply chain could be seen, and the amount of sales grew significantly in the 4Q to ¥32,200mn, an increase of around 5 times compared to the same period in the previous fiscal year. Due to the operations of the 3rd plant newly opened in July 2021, the annual production capacity has increased from the previous 1.5GW to 2.6GW and it is manufacturing the latest panels (1 panel generates more than 500W or more than 600W of power) and demand is expected for them, mainly in the European and the US markets.

Quarterly results in the Solar Module Manufacturing Business



Source: Prepared by FISCO from the Company's financial results

The operating income margin was 1.5%, down by 2.0 percentage points (pp) YoY, but this was mainly due to the increase in part prices and maritime transportation costs due to the rise in the price of crude oil. However, as a result of efforts to transfer the cost increases onto prices from the 3Q onwards, by the 4Q the operating income margin had recovered to a level of 2.5% (0.8% in the 3Q). The situation currently is that parts prices and maritime transportation costs remain high, so within the order contracts, the Company is working to review contract conditions for projects with fixed sales prices so that in the event that the rate of fluctuation of costs, such as materials costs and transportation costs, exceeds a certain level, these fluctuations can be reflected in sales prices. If these initiatives spread further, the operating income margin is expected to continue to recover.

(2) Green Energy Business

In the Green Energy Business, the amount of sales increased 92.7% YoY to ¥10,234mn, and segment income increased 19.7% to ¥1,204mn. The Company is converting the business model of this business from the previous flow-type business, of solar power plant and product sales, to a stock-type business in which revenue from electric power sales from the solar power plants that it builds and owns provides a stable earnings foundation, and it has been actively conducting M&A as one part of this strategy. Also, several of the solar power plants developed by the Company have started operations, so in FY6/22, depreciation and amortization of goodwill alongside the M&A increased greatly, which was one factor that kept down the growth of segment income.

Looking at the breakdown of the amount of sales, flow sales, which include power plant sales and product sales, were ¥7,582mn, while stock sales from electric power sales and O&A were ¥2,651mn. As flow sales, solar power plant sales increased, while it seems the product sales business relating to solar power generation equipment (solar panels, storage batteries, etc.) also contributed.

Stock sales, of revenue from electric power sales from the solar power plants owned by the Company, grew significantly from the plant's developed by the Company itself and from the effects of the M&A. Revenue from electric power sales, which began only around 4 years ago, exceeded ¥2.6bn in FY6/22 as the total with O&M from the strategy of continuing to own plants after their development in order to secure stable earnings. Also, the solar power plants currently under construction include the Yamato Town and Ohira Village Solar Power Plant in Miyagi Prefecture (scheduled to start supplying the power grid from December 2022, it will have a power generation capacity of 21.6MW and forecast annual revenue from electric power sales of ¥530mn).

O&M revenue is being established as a stable source of earnings. In addition to the results of WWB, VALORS ENGINEERING inc. is working on increasing the number of contracts by providing earth wiring that is effective as a measure against lightning strikes, ensuring security through installing cameras in facilities, and providing systems, such as to detect abnormal points by utilizing an RPA system. In addition, companies' interest in sustainable management is rising, and in this situation, the Group is aiming to strengthen its planning and proposal capabilities for solutions for carbon management, and it is actively progressing initiatives including NONFIT applications*, and solar sharing projects.

* A NONFIT application is an application to construct a solar power plant that does not depend on the FIT (Feed in Tariff) system. The reason is that electric power from solar power plants that utilize FIT has already paid a price for the environmental value in the form of the renewable energy levy and is not certified to be 100% renewable energy (because the environmental value belongs to the person paying the renewable energy levy). However, NONFIT electric power is certified to be 100% renewable energy, and needs are increasing for NONFIT solar power plants for self-consumption for those wanting to use 100% renewable energy, instead of the main purpose being to acquire profit through electric power sales.

In the overseas business, demand for electric power is strong in Southeast Asia, including in Vietnam, Cambodia, Indonesia, Sri Lanka, and Taiwan, and in response to this, the Group is participating in development projects through joint ventures with local companies and comprehensive trading companies. Also, the Group was selected in the public call for projects for the FY2019 Facilities Subsidy Projects Among Joint Crediting Mechanism (JCM) Financial Support Projects by the Ministry of the Environment, and it is progressing a project to establish a hybrid power generation facility in Cambodia that combines solar power generation (1MW) and biomass power generation (0.5MW). Also, in June 2022 it undertook an EPC business for roof-type solar power generation facilities that generate around 1MW at the Da Nang Mikazuki Japanese Resort and Spa, a multi-complex resort operated by the Hotel Mikazuki Group in Vietnam, and it started supplying electric power after its grand opening (provides around 35% of the electric power used by this resort's facilities). Due to the effects of COVID-19, restrictions on overseas travel continued and the overseas business has not made any noticeable progress since 2020. However, alongside the easing of restrictions on overseas travel, the projects are gradually starting to move again, and going forward the Company's policy is to expand this business.

Results trends

(3) IT Business

In the IT Business, the amount of sales increased 375.4% YoY to ¥292mn and segment income decreased 54.0% to ¥7mn. A factor behind the increase in the amount of sales was the contribution of the sales of Digital Sign, which was made a subsidiary in March 2022. Conversely, profits declined, including due to the recording of M&A costs and amortization of goodwill of ¥8mn.

Abit provides KnowledgeMarket®, which is an in-house product in order to improve labor productivity through the sharing of knowledge (information, findings, and experience) and the rebuilding of work processes. It also provides a DX support service that utilizes Microsoft 365 and services that uses RPA products to improve efficiency and for labor saving. In addition, it is working on services including to support the derivation of optimal solutions from data measurements by making full use of IoT. Also, in relation to aspects such as the provision of green energy and the promotion of RE100, it is progressing this business to meet the needs of SDGs-orientated companies, local governments and others while aiming to coordinate with the Green Energy Business and the healthcare-related business. Utilizing the expertise in IT that it has accumulated up to the present time, Digital Sign has started to provide a service for referrals of various IT-related professional human resources, and it has started the Information Asset Management Magazine, which is owned media for data security educational activities, and Joho Ichiba, an EC site focused on security products. In the future as well, it will develop various solutions through creating matches with business needs.

(4) Photocatalyst Business

The Photocatalyst Business has been impacted by the decline in needs for COVID-19 anti-infection measures, and the amount of sales decreased 54.8% YoY to ¥80mn and it recorded a segment loss of ¥17mn (profit of ¥32mn in the previous period). In March 2022, a business partnership was concluded with ANEST IWATA and the subsidiary A&C Service, and as a new initiative they are jointly developing construction machinery and materials, including a spray gun that uses photocatalyst products.

Also, the synergies with equity-method affiliate Meiji Machine are expected to include the expansion of sales of solar sharing systems and sales of machinery in the Southeast Asia region as a whole, and the utilization photocatalysts for the safe and hygienic management of pig and poultry farms. In FY6/23, sales of photocatalyst products for pig and poultry farms are expected to grow, and also the Group plans to actively increase sales overseas, including that it is progressing sales discussions with a US company for a specific project.

Total assets are increasing alongside the expansion of business scale

2. Financial condition

Looking at the financial condition at the end of FY6/22, total assets had increased ¥45,792mn on the end of the previous period to ¥85,181mn. The main factors were VSUN's growth and that the Company actively progressed business expansion, including by M&A. Current assets increased ¥34,913mn. Breaking down the main items, cash and deposits decreased ¥755mn, but there were increases of notes and accounts receivable of ¥4,843mn, merchandise and products of ¥20,260mn, and real estate for sale of ¥403mn. Non-current assets increased ¥10,884mn, as property, plant, and equipment rose ¥5,397mn due to the business expansion after the start of operations of VSUN's third plant, the increase in power plants owned by the Company, and the implementation of M&A, and also as goodwill increased ¥4,299mn and investment securities rose ¥959mn.

Results trends

Total liabilities were ¥77,174mn, an increase of ¥42,563mn on the end of the previous period. Current liabilities increased ¥31,509mn. Breaking down the main items, there were increases of accounts payable-trade of ¥9,536mn mainly due to VSUN's business expansion and the power plant developments, short-term borrowing of ¥11,857mn, accounts payable of ¥3,477mn, and advances received of ¥11,288mn. Also, non-current liabilities increased ¥11,054mn, mainly because long-term borrowing grew ¥5,927mn and long-term accounts payable installment purchase rose ¥5,200mn.

Net worth was ¥8,007mn, an increase of ¥3,229mn on the end of the previous period. Due to a capital increase from a third party allocation, capital and the capital surplus increased ¥836mn, while net income attributable to owners of the parent company of ¥867mn was recorded, and non-controlling interests increased ¥1,181mn following the growth of VSUN's earnings.

As a result, the equity ratio fell from 10.2% at the end of the previous period to 7.0%, but this was mainly due to the fund raising through borrowing for the expansion of the electric power sales business, and ROE was maintained at the high level of 17.4%. As reference values, within domestic total assets excluding VSUN, the domestic net asset ratio in relation to the value excluding the portion of borrowing allocated to domestic power plant investment projects is calculated to be 30.4%.

Consolidated balance sheet

	(¥mn)				
	FY6/19	FY6/20	FY6/21	FY6/22	Change
Current assets	6,077	8,553	22,537	57,450	34,913
(Cash and deposits)	799	1,209	4,722	3,966	-755
(stock*)	4,218	6,535	11,312	31,320	20,008
Non-current assets	4,893	6,193	16,835	27,719	10,884
Property, plant and equipment	4,238	5,528	15,201	20,599	5,397
Intangible assets	195	110	365	4,688	4,323
(Goodwill)	152	77	332	4,631	4,299
Investments and other assets	459	554	1,268	2,432	1,164
Total assets	10,985	14,764	39,388	85,181	45,792
Current liabilities	4,640	6,745	26,212	57,721	31,509
Non-current liabilities	4,312	5,859	8,398	19,452	11,054
Total liabilities	8,952	12,605	34,611	77,174	42,563
(Interest-bearing debt)	3,892	5,433	13,691	31,770	18,079
Net worth	2,032	2,159	4,777	8,007	3,229
<Stability>					
Equity ratio	17.9%	14.2%	10.2%	7.0%	-3.2pt
<Profitability>					
ROA	6.2%	2.4%	4.7%	2.4%	-2.3pt
ROE	16.9%	10.4%	17.6%	17.4%	-0.2pt
Operating income margin	10.2%	5.4%	5.1%	1.8%	-3.3pt

* Stock = real estate for sale + merchandise and products + work in progress + raw materials and storage items.

Source: Prepared by FISCO from the Company's financial results

Outlook

The Company's FY6/23 results forecasts are conservative and results are highly likely to exceed them

1. Consolidated outlook for FY6/23

The forecasts for the FY6/23 consolidated results are that the amount of sales will increase 19.0% YoY to ¥110,000mn, operating income will grow 70.8% to ¥2,900mn, ordinary income will rise 86.0% to ¥2,810mn, and net income attributable to owners of the parent company will increase 47.6% to ¥1,280mn, which shows the Company's expectations of continued high growth.

For the sales forecasts by business, in the Solar Module Manufacturing Business, they are expected to be on a scale of ¥100,000mn and domestic stock sales (electric power sales and O&M revenue) of more than ¥3,000mn are forecast. Overall, the strong impression is that the forecasts are conservative, and as long as the market environment does not deteriorate rapidly in the near future, at FISCO we think it is highly likely that results will be higher than the Company's forecasts.

Consolidated outlook for FY6/23

	FY6/22		FY6/23		YoY
	Results	% of amount of sales	Company forecasts	% of amount of sales	
Amount of sales	92,435	-	110,000	-	19.0%
Operating income	1,697	1.8%	2,900	2.6%	70.8%
Ordinary income	1,510	1.6%	2,810	2.6%	86.0%
Net income attributable to owners of the parent company	867	0.9%	1,280	1.2%	47.6%
Earnings per share (EPS) (¥)*	52.78		77.02		

* EPS is the value after the 1:3 share split implemented on September 1, 2022

Source: Prepared by FISCO from the Company's financial results

(1) Solar Module Manufacturing Business

In the Solar Module Manufacturing Business, on the one hand orders are expected to continue to be strong, but on the other hand the situation is that the global supply chain has not yet settled down, including due to the prolonging of the COVID-19 pandemic and the Ukraine crisis. In this business, it seems that amount of sales on a scale of ¥100,000mn are forecast. This forecast appears slightly conservative, but this is due to the lack of transparency in the external environment. In FY6/22 4Q, the amount of sales was ¥32,200mn, which was a record high on a fiscal quarterly basis, while demand for Europe is expected to grow in the future as well, and moreover progress is being in acquiring orders in the South America region, so it is possible that sales will grow even more.

In profits, the situation is that the prices of parts and maritime shipping costs remain high, so the Company is continuing to transfer these increases onto sales prices according to the timing of changes of order contract conditions. Factors in the external environment will have an impact, but as a result of its initiatives, the outlook is for the segment income margin to gradually recover. Even while the future remains uncertain due to the effects of the COVID-19 pandemic and the Ukraine crisis, during a normal period for the external environment, the Company thinks that the appropriate level for the profit margin in this business is around 5%.

Outlook

For the effects of exchange rates, there are both euro denominated and US dollar denominated effects, but costs such as parts purchases and maritime shipping costs are dollar denominated, so VSUN's results will be affected by exchange-rate fluctuations when converted into the Japanese yen. The exchange rate at the end of FY6/22 was ¥0.006/VND, and should the yen trend weakly at this level, this becomes a profit-gain factor for VSUN's yen-based results.

(2) Domestic stock sales

Domestic stock sales are forecast to be more than ¥3,000mn on considering the operations of existing power plants, the connection to the grid of plants currently under development, and projects acquired through M&A. Projects currently under development include the Yamato Town and Ohira Village Solar Power Plant at which operations are scheduled to start from December 2022 (forecast annual revenue from electric power sales: approximately ¥530mn), while in addition, the Company is continuing to consider acquisitions through M&A.

(3) Domestic flow sales

Domestic stock sales of more than ¥3,000mn are forecast, so it seems domestic flow sales are expected to decline to slightly less than ¥7,000mn from the previous period's result of ¥8,009mn, but this seems a conservative forecast as there are no special sales-decrease factors. From the ongoing policies for power plant sales and the product sales business, the positive factors will include the development of the solar sharing business through the partnership with Meiji Machine, the active development of the EPC business in Southeast Asia, and the full fiscal year contribution of Digital Sign in the IT Business. The Group will also continue to progress the solar panel reuse and recycling business.

For the power storage system that utilizes hydrogen energy that is being researched and developed by Birdy Fuel Cells, the target is to store a large amount of electric energy generated by solar power for 7 days or more.

For the medium-term management plan up to FY6/24, the pace of progress has been higher than anticipated and will upwardly revise the targets

2. Medium-term management plan

(1) Overview of the medium-term management plan

In October 2021, the Company announced its three-year medium-term management plan (FY6/22 to FY6/24). It has positioned this period as the runway period for its aim of becoming "a core global renewable energy group," which is its 2030 Group Vision, and with the Solar Module Manufacturing Business and the Green Energy Business as its growth engines, its policy is to aim to maximize the Group's sustainable growth and enterprise value.

Over the plan's three years, the initiatives including expanding VSUN's results, growing the stock-type business, and strengthening the carbon-free business, while as the medium- to long-term targets, in FY2030 the Company is aiming for a domestic and overseas power generation capacity of 1GW and a solar panel annual manufacturing target of 8GW (manufacturing capability, 2.6GW). The medium-term management plan's results targets for FY6/24 are amount of sales of ¥59,000mn, operating income of ¥3,600mn, and ordinary income of ¥3,100mn. But as previously explained, the amount of sales greatly exceeded its target value in the plan's first year due to the growth of VSUN's results, and therefore the Company is reviewing the FY6/24 results targets and plans to announced the revised targets when it has compiled them.

Outlook

The equity ratio target for FY6/24 is 20%, and from the perspective of financial soundness, it seems that the Company is considering various fundraising methods while still being based on supplementing shareholders' equity through earnings growth.

Medium-term management plan

	FY6/21 Results	FY6/22		FY6/23	
		Initial target	Results	Initial target	Current target
Amount of sales	26,901	35,000	92,435	48,000	110,000
Overseas sales (VSUN)	21,013	25,000	81,775	35,000	100,000
Domestic flow sales*1	4,401	7,800	8,009	9,700	6,700
Domestic stock sales*2	1,487	2,200	2,651	3,300	3,300
Operating income	1,361	1,400	1,697	2,400	2,900
Ordinary income	1,269	1,430	1,510	2,000	2,810
Equity ratio	10.2%		7.0%		

*1 Includes the businesses carried out by the domestic Group companies of power plant sales, product sales (panels, storage batteries, etc.), the reuse and recycling business, the energy saving business, etc.

*2 Revenue from electric power sales from solar and wind power plants, etc., stable revenue from O&A, etc., and the revenue businesses that are the sources of cash flow.

Note: plans to announce the FY6/24 medium-term results forecasts after revising them

Source: Prepared by FISCO from the Company's medium-term management plan materials

(2) Priority policies

a) Grow VSUN's results

The target for VSUN's amount of sales was to double them from ¥21,013mn in FY6/21 to ¥42,000mn in FY6/24. But as it has in its sights sales of ¥100bn in FY6/23, the aim is to grow the scale of sales even more in FY6/24. In the main European market, investment in solar power generation is increasing due to the energy shortage. In addition, sales are expected to grow in the North America and South America markets, and also in the Southeast Asia market in the medium to long term.

The competitors in the solar panel industry are Chinese manufacturers, but the Company's strategy is not to get involved in price competition and instead to grow sales by utilizing its products' quality and reliability. Also, the segment income margin declined to 1.5% in FY6/22, but due to the transfer of cost increases to prices and other initiatives, in FY6/23 it is expected to recover to a certain extent as long as the external environment does not deteriorate rapidly, and it is forecast to continue to recover in FY6/24 as well. Against the backdrop of the strong demand, the Company plans to strengthening its power-generation capacity ahead of schedule, and it is possible that it will further raise-up its initial target of 3.6GW (currently 2.6 GW).

b) Expand the stock-type business

Establishing a stable earnings foundation through revenue from electric power sales is the most important strategy in the 2030 Group Vision. In addition to the Company owning power plants from its own developments, it is considered that it will accelerate the speed of growth by conducting large-scale M&A, and it is targeting securing a power generation capacity of 150MW by FY6/24.

c) Power plant sales (secondary)

In order to secure sales in the process of promoting stock-type (Company owned) sales, the policy is to strengthen sales including of high-voltage and low-voltage projects, focused on secondary properties. Its policy is also to increase sales of solar sharing systems by building strategic partnerships with major companies and through the partnership with Meiji Machine.

Outlook

d) Promote the carbon-free business

To respond to the needs of companies, local governments, and others to use renewable energy (RE100, etc.), the Company will work on developing services using a PPA model* through NONFIT applications that are competitive and have high added value. The number of green energy-orientated companies is increasing, and in addition, the Japanese government has announced its plan to promote introductions of solar power generation facilities into public facilities in order to meet the targets for introducing solar power generation in the 6th Energy Basic Plan, and in such ways the outlook is that opportunities to participate using the PPA model will increase, which can be understood to be business opportunities. In addition, it is considered that the Company will work on enhancing its service menu, such as by providing energy-saving devices and consulting on energy saving.

* PPA (Power Purchase Agreement) is a model to acquire revenue from customers, in which through a power customer providing space to a PPA business, such as within a site or on a roof, the PPA business provides free of charge the installation, management, and maintenance of the power generation facilities, including solar power generation systems.

e) Photocatalyst Business /IT Business

The Photocatalyst Business, whose main customers include large-scale properties, hotels, large-scale event venues, and the healthcare field (hospitals and nursing care facilities), is actively developing the Photocatalyst LIFE business and plans to further increase the number of franchisees and agencies to more than the current number of 100 companies. Its policies are also to develop the business for domestic pig and poultry farms through the partnership with Meiji Machine and to work on developing the business in overseas markets. Conversely, the IT Business is aiming for growth, while expanding the business areas, through an M&A strategy.

(3) Policies to improve enterprise value in the medium to long term

The Company has indicated that it intends to work on the following points as its policies to improve enterprise value in the medium to long term.

- Grow VSUN's results, achieve sustainable growth, and improve the profit margin
- Strengthen applications for self-consumption projects (non-FIT and non-farm), promote solar sharing, and appeal to companies (SBT, RE100, etc.) and local governments aiming for decarbonization about new business opportunities and present them with solutions
- Conduct M&A, mainly in the renewable energy field, and secure various fundraising methods
- Improve the equity ratio in a planned manner (achieve financial soundness)
- Register VSUN on the public stock offering system toward its IPO on Vietnam's UPCoM over-the-counter market
- Disclose information with an awareness of the ESG rating score (TCFD) and expand disclosure of English materials
- Progress strategic partnerships and collaborations with leading companies, comprehensive trading companies, etc.
- Change the listing designation to the Prime Market etc.

■ Shareholder return policy

Basic policy is to stably and continuously pay dividends and to actively return profits to shareholders according to its financial situation

The Company's basic shareholder return policy is, after considering returning capital gains based on improving enterprise value through results growth, to stably and continuously pay dividends and actively return profits to shareholders according to its financial situation while maintaining a good balance between "returning profits to shareholders" and "securing internal reserves to fund growth."

For the dividend per share in FY6/22, to express its gratitude to shareholders for their continued support even during the COVID-19 pandemic, the Company added a special dividend of ¥1.0 to the interim dividend of ¥8.0 and paid a period-end dividend of ¥10.0, the same as in a typical year. It has not yet determined the FY6/23 dividend, but it is highly likely to pay the same dividend as in the previous fiscal year as long as there are no special circumstances, such as in the external environment or for the business progress made. The Company conducted a 1:3 share split on September 1, 2022.

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