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Abalance

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Executive summary

Abalance Corporation (TSE Standard: 3856) primarily manufactures and sells solar panels. It engages in the planning, development, sale, operation, and maintenance of solar power systems, as well as in the sale of electricity generated by proprietary solar power plants. As a holding company, Abalance oversees and controls group management, while subsidiaries handle business operations. In FY03/25 (a nine-month irregular fiscal period due to a change in fiscal year-end), the company recorded revenue of JPY72.4bn and operating profit of JPY3.6bn. Its operations are categorized into two reportable segments—Solar Panel Manufacturing (accounting for 88.9% of revenue and 82.3% of operating profit before adjustments and inclusion of Other businesses) and Green Energy (10.3% and 17.7%, respectively)—in addition to Other businesses.

The company was established in April 2000 as a developer and operator of knowledge management software. In November 2011, it made WWB Corporation (WWB), which planned, sold, and installed solar power systems, a wholly owned subsidiary through a share exchange. In December 2020, Vietnam Sunergy Joint Stock Company (VSUN), a Vietnamese solar panel manufacturer whose revenue at the time (FY06/21) was more than three times that of the company, became a consolidated subsidiary. The company held 69.2% of VSUN's voting rights as of end-June 2025. In October 2023, it established TOYO Co., LTD (NASDAQ: TOYO), a business holding company incorporated in the Cayman Islands, as the parent company of its solar cell production subsidiary. The company held 45.5% of TOYO's voting rights as of end-March 2025, and TOYO was listed on NASDAQ in July 2024. With the addition of panel and cell manufacturing companies to the group, the company has built a vertically integrated structure covering solar panel manufacturing, power plant development, operation, maintenance, reuse and recycling, and trading.

Solar Panel Manufacturing business is operated by VSUN and TOYO. VSUN was founded in June 2015 and is headquartered in Bac Giang Province, Northeast Vietnam. It operates four panel manufacturing plants in Vietnam with a total annual production capacity of 4GW. In April 2024, it also began operations at a new ingot and wafer plant with an annual capacity of 4GW. TOYO operates a 2GW cell manufacturing plant in Vietnam through its subsidiary TOYO SOLAR Company Limited (formerly Vietnam Sunergy Cell Company Limited). As of March 2025, the group's production capacity included 4GW for solar panels and 4GW for ingots and wafers at VSUN, and 2GW for solar cells at TOYO. In addition, TOYO began production of solar cells at a new plant in Ethiopia in April 2025, with Phase 1 capacity of 2GW.

Both companies source raw materials from Europe, the US, and Asia and carry out integrated manufacturing at their plants in Vietnam, covering the entire process from ingot and wafer production to cell and panel manufacturing. Their products are supplied mainly to the US, Asia, and Europe through overseas branches and direct sales channels. Through continuous expansion of its production capacity, VSUN has grown into one of Vietnam's leading panel manufacturers. TOYO, for its part, plans to begin Phase 2 of cell production (2GW, bringing the total to 4GW) at its Ethiopian plant during Q2 FY03/26. In addition, TOYO intends to launch panel manufacturing in Texas, US, starting with Phase 1 (1GW) and expanding to Phase 2 (1.5GW) by end-2025.

Since the 2010s, in response to the rapid growth and aggressive export expansion of China's solar panel industry, the US has introduced a series of tariff measures aimed at protecting its domestic industry. These measures have included anti-dumping (AD) duties, countervailing duties (CVD), and safeguard tariffs against Chinese products. To prevent circumvention via third countries, the US has also imposed similarly strict tariffs on solar panels exported from Southeast Asian countries. In 2025, the Trump administration further raised tariffs on foreign imports. Although the company is one of the few major solar panel manufacturers not backed by Chinese capital, it has nevertheless been affected by these trade measures. In response, the company has acted swiftly and flexibly to restructure its global supply chain—expanding its customer base beyond the US to India, Taiwan, and Europe, while diversifying its production bases from Vietnam to Ethiopia and the US.

Green Energy business: Mainly operated by subsidiaries WWB and Valors Corporation, the Green Energy segment comprises a recurring revenue business (accounting for 60% of segment revenue in FY03/25) and a one-time revenue business (40%). The recurring revenue business is based on a model through which the company continues to own the solar power plants it either develops or acquires, earning income from selling the generated electricity to power utilities. In the one-time revenue business, the company engages in solar power plant trades with renewable energy consumers, sells products associated with power generation facilities, and engages in direct sales or uses agents to provide end-to-end services for solar projects (such as planning, engineering, development/construction, operation and maintenance, reuse, and recycling) to companies and consumers. The company is also working to build an optimal portfolio of solar power plants and, by promoting the grid storage battery business—a market expected to grow significantly—plans to further strengthen the foundation of its recurring revenue business.

In September 2023, the company formulated a new medium-term management plan for FY06/24–FY06/26. However, in August 2024, the company withdrew the numerical targets of this plan due to significant changes in the market conditions that were initially assumed. Specifically, a global supply glut in the core overseas solar panel manufacturing business has led to a market downturn, while the US market has been impacted by the expiration of tariff exemptions for solar panel-related products from four Southeast Asian countries in June 2024. Despite these challenges, the company remains committed to building a competitive supply chain in the Solar Panel Manufacturing business, including the construction of a cell plant in Ethiopia and a panel plant in the US, and diversifying its sales areas, with a focus on expanding sales in Europe and Asia, such as India. By swiftly adapting to market conditions and policy changes in the global solar panel market, which is still expected to grow, the company aims to drive sustainable business growth.

The International Energy Agency (IEA) predicts that global electricity demand will expand, with renewables such as solar and wind power becoming mainstream sources. IEA presents an outlook on installed capacity for each energy source based on three scenarios. In the most conservative scenario, it expects installed electricity capacity of solar power to grow from 1,610GW in 2023 to 5,838GW in 2030, and to 16,445GW in 2050. This will lead to expanded demand for solar panels. However, in light of factors such as US–China trade frictions, there is a growing push to reevaluate supply chains. Shared Research understands that it is crucial for manufacturers to establish competitive supply systems for solar panels and components, such as solar cells, in strategically advantageous locations, including Southeast Asia, the US, and Africa.

Earnings trends

In FY03/25 (nine months), the company reported revenue of JPY72.4bn, operating profit of JPY3.6bn, recurring profit of JPY3.7bn, and net income attributable to owners of the parent of JPY951mn. OPM was 5.0%. In the core Solar Panel Manufacturing business, global demand remained strong, but market conditions were soft due to a global oversupply of solar-related products. In the US market, uncertainty persisted around government tax policies. The company advanced new sales strategies targeting India and Taiwan, and made progress in preparing for the construction of new manufacturing facilities—a solar cell plant in Ethiopia and a panel plant in Texas, US. Despite incurring expenses related to these investments, the company remained profitable for FY03/25.

For FY03/26, the company forecasts revenue of JPY95.0bn, operating profit of JPY6.0bn, recurring profit of JPY6.0bn, and net income attributable to owners of the parent of JPY3.0bn. Market conditions remain challenging due to continued global oversupply and weak pricing in solar-related products. Uncertainty surrounding US tax policy also persists. The Abalance group will continue to diversify its sales channels for VSUN's panels and TOYO SOLAR's cells, with a focus on expanding in Europe, India, and other Asian markets. TOYO has completed Phase 1 of its new solar cell plant in Ethiopia and, supported by strong demand, plans to begin Phase 2 production by Q2 FY03/26. In addition to supplying products to its new solar panel plant currently under construction in Texas, the company also intends to strengthen sales to external customers. The company plans to finance its capital investments primarily through a combination of internal funds and bank borrowings.

The company has set a goal to become a “core global company in renewable energy” by 2030, focusing on building a robust supply chain for solar panel manufacturing and leveraging the Green Energy business as growth engines to achieve sustainable growth and maximize corporate value. In September 2023, the company formulated a new medium-term management plan (FY06/24–FY06/26). However, in August 2024, the company withdrew the numerical targets of this plan due to significant changes in the market environment. The company intends to disclose new targets once they can be reasonably calculated.

Strengths and weaknesses

Abalance's strengths, according to Shared Research (See the “Strengths and weaknesses” section for details)

- In the rapidly evolving solar panel industry, the company has established itself as one of the leading manufacturers with production bases outside China by swiftly and flexibly adapting its supply chain.
- With the addition of manufacturing functions for ingots, wafers, and cells, key upstream processes in solar panel production, the company has formed a global supply chain and established the Japan brand, providing end-to-end services in Japan that no other peers can match.
- VSUN is well recognized by third-party organizations and major purchasers for its sustainable procurement practices and solar panel quality, comparable with major manufacturers. It has also been certified as a Tier 1 supplier by Bloomberg NEF—a US-based rating agency that assesses factors such as bankability and financial stability—for six consecutive quarters from April–June 2024 through July–September 2025.

Weaknesses

- Solar panels and cells, the group's main products, are susceptible to demand/supply and price fluctuations due to policy changes by various governments. To mitigate such policy-related risks, the group has begun producing cells in Ethiopia and plans to start panel production in the US.
- The Abalance group's solar panel and cell production scale is still small compared to major manufacturers. To address this, it is expanding production capacity across panels, cells, and ingots/wafers, while working to strengthen its global supply chain.
- The company needs to strengthen its financial soundness to sustain high investment levels. Its equity ratio improved to 16.6% in FY03/25, and it aims to continue enhancing this ratio through the accumulation of retained earnings.

Key financial data

	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)	FY03/26
	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Company forecast
Income statement (JPYmn)											
Revenue	4,540	6,495	7,301	5,985	6,678	26,901	92,122	215,284	208,972	72,417	95,000
YoY	3.3%	43.1%	12.4%	-18.0%	11.6%	302.8%	242.4%	133.7%	-2.9%	-	-
Gross profit	1,108	1,489	2,178	1,873	1,762	4,788	9,613	29,621	44,573	12,177	-
YoY	2.5%	34.4%	46.3%	-14.0%	-5.9%	171.7%	100.8%	208.1%	50.5%	-	-
Gross profit margin	24.4%	22.9%	29.8%	31.3%	26.4%	17.8%	10.4%	13.8%	21.3%	16.8%	-
Operating profit	397	115	927	608	362	1,361	1,605	12,804	23,349	3,602	6,000
YoY	-5.5%	-71.0%	704.7%	-34.4%	-40.5%	276.4%	17.9%	697.8%	82.4%	-	-
Operating profit margin	8.8%	1.8%	12.7%	10.2%	5.4%	5.1%	1.7%	5.9%	11.2%	5.0%	6.3%
EBITDA	431	169	1,050	882	627	2,081	3,209	15,096	28,165	8,828	-
YoY	-7.9%	-60.8%	521.0%	-16.0%	-29.0%	232.1%	54.2%	370.4%	86.6%	-	-
EBITDA margin	9.5%	2.6%	14.4%	14.7%	9.4%	7.7%	3.5%	7.0%	13.5%	12.2%	-
Recurring profit	427	49	874	566	306	1,269	1,418	14,038	24,894	3,737	6,000
YoY	25.8%	-88.6%	1700.1%	-35.2%	-46.0%	315.3%	11.7%	890.0%	77.3%	-	-
Recurring profit margin	9.4%	0.7%	12.0%	9.5%	4.6%	4.7%	1.5%	6.5%	11.9%	5.2%	6.3%
Net income attributable to owners of the parent	231	-176	757	316	211	537	806	4,965	9,530	951	3,000
YoY	15.8%	-	-	-58.2%	-33.1%	154.2%	50.1%	516.0%	91.9%	-	-
Net margin	5.10%	-2.7%	10.4%	5.3%	3.2%	2.0%	0.9%	2.3%	4.6%	1.3%	3.2%
Per-share data (JPY, stock split, adjusted for reverse stock split)											
Shares issued (year-end; '000)	5,041	5,190	5,190	5,190	5,196	5,334	5,567	17,465	17,928	17,931	-
EPS	15.31	-	48.64	20.38	13.64	34.21	49.12	293.36	547.83	53.50	168.53
EPS (fully diluted)	-	-	48.48	20.38	-	33.70	49.04	290.41	543.99	-	-
Dividend per share	3.67	3.67	5.67	5.67	5.67	5.67	6.00	8.00	8.00	3.00	-
Book value per share	80.65	68.42	113.54	127.15	134.99	251.62	353.33	726.88	1,337.80	1,358.44	-
Balance sheet (JPYmn)											
Total current assets	2,420	4,692	5,227	6,078	8,553	22,537	57,450	100,049	89,197	89,038	-
Cash and deposits	496	672	601	799	1,209	4,722	3,966	20,619	37,740	26,451	-
Notes and accounts receivable	473	335	335	393	303	1,312	6,156	2,011	3,558	5,434	-
Merchandise and finished goods	385	423	327	172	246	6,480	26,740	48,827	13,232	16,618	-
Tangible fixed assets	223	1,222	1,456	4,239	5,529	15,201	20,507	32,943	49,304	46,242	-
Intangible assets	5	290	217	195	110	365	4,688	7,523	6,404	6,587	-
Investments and other assets	142	195	289	459	554	1,268	2,463	3,134	5,266	3,933	-
Total assets	2,790	6,400	7,189	10,985	14,765	39,388	85,121	143,691	150,173	145,802	-
Total current liabilities	1,368	3,545	3,873	4,641	6,745	26,212	57,721	100,356	83,261	80,286	-
Total fixed liabilities	203	1,733	1,499	4,312	5,859	8,398	19,452	20,563	24,479	22,176	-
Total liabilities	1,571	5,279	5,373	8,953	12,605	34,611	77,174	120,920	107,741	102,463	-
Total net assets	1,219	1,121	1,816	2,032	2,159	4,777	7,947	22,771	42,432	43,338	-
Shareholders' equity (excl. stock acquisition rights and non-controlling interests)	1,219	1,077	1,767	1,989	2,093	4,006	5,873	12,596	23,800	24,182	-
Cash flow statement (JPYmn)											
Cash flows from operating activities	206	-984	405	-147	-861	-608	-6,449	18,526	44,757	-10,361	-
Cash flows from investing activities	-75	-864	-559	-1,620	-472	-1,391	-13,221	-20,670	-21,191	-2,620	-
Cash flows from financing activities	-85	1,991	-62	1,913	1,465	5,290	17,752	17,235	-5,446	4,128	-
Financial ratios											
ROA (RP-based)	16.0%	1.1%	12.9%	6.2%	2.4%	4.7%	2.3%	12.3%	16.9%	-	-
ROE	20.5%	-15.3%	53.2%	16.9%	10.4%	17.6%	16.3%	53.8%	52.4%	-	-
Equity ratio	43.7%	16.8%	24.6%	17.9%	14.2%	10.2%	6.9%	8.8%	15.8%	16.6%	-

Source: Shared Research based on company data

Notes: The company conducted a 100-for-1 stock split in FY06/14, and a 3-for-1 stock split in September 2022. Other changes in the number of shares outstanding are due to capital increases via third-party allotment and/or the exercise of share subscription rights.

EBITDA is obtained by adding depreciation and goodwill amortization to operating profit.

FY03/25 is a nine-month fiscal period due to the fiscal year-end change; therefore, YoY comparisons are not provided.

Any differences between figures in the table and those in company data are due to rounding.

Recent updates

Abalance appoints members to third-party committee

2025-09-02

Abalance Corporation announced the appointment of members to its third-party committee.

The company's Board of Directors resolved to establish a third-party committee after determining the need to investigate past supply transactions involving compensation, revise the relevant annual securities report, and review other related transactions. As disclosed in the August 12, 2025 release titled "Abalance establishes third-party committee," the company announced the formation of a committee comprising external experts. At the Board meeting held on September 2, 2025, the company appointed the following committee members.

Committee members

- Chairperson: Junko Motozawa (Attorney, Motozawa Law Office)
- Member: Yoshikazu Tanaka (Attorney, Kataoka & Kobayashi LPC)
- Member: Kenzo Oguro (Certified Public Accountant, Yamato Partners Co., Ltd.)

Selection process and rationale for committee members

The company's legal department was introduced to Attorney Junko Motozawa as a candidate for committee chair through a personal connection between her and an attorney the department had previously engaged. Following this introduction, Attorney Motozawa invited Attorney Yoshikazu Tanaka and CPA Kenzo Oguro—both of whom she had previously worked with on other investigation committees—to join the committee. The reason for selecting these individuals is that all three have extensive experience serving on investigation committees and have no conflicts of interest with the company, allowing them to conduct the investigation from an objective and neutral standpoint. The formation of this third-party committee complies with the Japan Federation of Bar Associations' Guidelines on Third-Party Committees in Corporate Misconduct Cases.

Purpose of establishing the committee

The purpose of establishing the committee is to have an external third party investigate the facts concerning the matters outlined below, in order to support the company's sustainable business operations going forward.

1. Investigation into the following matters
 - Reinvestigation of the Audit and Supervisory Committee's investigation report dated March 13, 2024
 - Investigation into impairment and application documents related to Taiwa Town Solar Power LLC
 - Investigation into related party transactions
2. Investigation into the existence of similar cases
3. Assessment of the impact of 1. and 2. on the company's consolidated financial statements and other disclosures
4. Identification of the causes behind the issues described in item 1 and recommendations for recurrence prevention
5. Other matters deemed necessary by the committee

Date of committee establishment

September 2, 2025

Expected duration of the investigation

Abalance expects the investigation to take approximately four months, although this may vary depending on various circumstances.

Next steps

Abalance intends to fully cooperate with the third-party committee and move forward with the investigation in a timely manner. The company plans to promptly disclose any facts that come to light. It also aims to apply the findings of the investigation to support sustainable management under its new leadership structure.

Abalance establishes third-party committee

2025-08-12

Abalance Corporation announced the establishment of a third-party committee.

The company's Board of Directors resolved to establish a third-party committee after determining the need to investigate its previous supply transactions with compensation, amend the related annual securities report, and review other transactions.

Reason for the establishment of the third-party committee

At the 26th Annual General Meeting of Shareholders held on June 28, 2025, the company appointed five directors (excluding those who serve as Audit and Supervisory Committee members), including three newly appointed directors. The purpose was to strengthen its ability to address management challenges by appointing internal personnel who are highly familiar with the group's businesses and possess extensive experience and expertise. Under this new management structure, the company has been reviewing various past transactions. In addition, following observations from an external organization, it determined that a third-party committee should be established to conduct a detailed investigation into the matters listed below.

Details of the third-party committee

- Purpose of establishment: The new management team has determined that a rigorous investigation by an external third party is essential for the company's sustainable business operations.
- Committee members: To be determined
- Date of establishment: To be determined

Scope of investigation by the third-party committee

- Reinvestigation of the Audit and Supervisory Committee's investigation report dated March 13, 2024
- Investigation into impairment and application documents related to the Taiwa Town Solar Power LLC
- Investigation into related party transactions

Outlook

Except the potential impairment related to the Taiwa Solar Power LLC noted above, the items subject to this investigation are not expected to impact business results. If, based on the findings of the third-party committee, it is determined that impairment is necessary and a revision to earnings is required, the company plans to announce this promptly. The investigation report will also be disclosed promptly upon receipt by the company.

Abalance to record extraordinary gain and loss from sale of fixed asset by consolidated subsidiary

2025-07-15

Abalance Corporation announced it will record both an extraordinary gain and an extraordinary loss in connection with the sale of a fixed asset by a consolidated subsidiary.

The company has decided to sell a fixed asset held by consolidated subsidiary WWB Corporation. As a result of the sale, the company expects to record an extraordinary gain (gain on sale of fixed assets) as well as an extraordinary loss (loss on cancellation of long-term installment payables).

Sale of fixed asset and expected recognition of extraordinary gain

Reason for the sale of fixed asset

WWB is focusing on expanding its in-house power generation facilities, primarily solar power generation facilities, as part of its Green Energy business. In addition to electricity sales under the FIT scheme, the subsidiary plans to continue strengthening its recurring revenue business through various formats, including non-FIT, PPA, and both on-site and off-site models. Looking ahead, WWB also intends to actively expand into the grid-connected storage battery sector, aiming to build an optimal business portfolio. As part of this strategy, it has decided to sell a completed solar power plant located in Miyagi Prefecture. Through this transfer, WWB aims to further strengthen its portfolio of solar power assets and grid storage battery operations, reinforcing its stable earnings base.

Details of the transferred asset

- Asset: Solar power plant located in Miyagi Prefecture
- Gain on transfer: Approximately JPY2.1bn (transfer price and transferee undisclosed)
- Transfer date: July 15, 2025

Reason for recognition of extraordinary loss

As a result of the transfer, the related long-term installment payables will be terminated before maturity. Consequently, the company expects to record a penalty associated with the early termination—amounting to approximately JPY700mn—as an extraordinary loss (loss on cancellation of installment payables).

Outlook

The company expects to record an extraordinary gain of approximately JPY2.1bn from the sale of fixed assets in Q2 FY03/26 (July 1 to September 30, 2025). This impact has already been reflected in the full-year earnings forecast for FY03/26 announced on May 15, and the company believes the effect on its overall business performance will be minor.

Abalance announces five directors (who will not concurrently serve as Audit and Supervisory Committee members) were appointed during the 26th Annual General Meeting of Shareholders

2025-06-30

Abalance Corporation announced five directors (who will not concurrently serve as Audit and Supervisory Committee members) were appointed during the 26th Annual General Meeting of Shareholders held on June 28, 2025.

The newly appointed directors are as follows:

Name	Title
Junsei Ryu	(current) Chairman and CEO
Ryoichi Kunimoto	(newly appointed) President and COO
Motoharu Fujisawa	(current) Vice chairman of the Board
Kazuyasu Shibata	(newly appointed) Director in charge of corporate administration division
Koichi Hashimoto	(newly appointed) Director in charge of the finance and legal Division

Following approval at the June 2025 General Meeting of Shareholders, the company has transitioned to a two-person representative director structure, appointing Mr. Junsei Ryu and Mr. Ryoichi Kunimoto as co-representative directors. In February 2024, the company disclosed that revenue and cost of revenue had been incorrectly recorded in relation to a subsidiary's transactions involving paid provisions, based on the Accounting Standard for Revenue Recognition. Additionally, in May 2024, a former executive officer was arrested for insider trading. In response to these developments, the company has been working to strengthen its governance framework starting from FY06/24. In September 2024, the company appointed Mr. Ryusuke Okada—an external candidate—president and representative director. It also established a Risk and Compliance Committee, chaired by an independent outside director, and reinforced the functions of its Internal Control Committee, chaired by an executive officer. Both committees serve as advisory bodies to the Board of Directors and are intended to enhance risk management and compliance. Furthermore, the company created two new specialist subcommittees within the Management Council: the Finance Committee and the Investment Committee.

Following the governance reforms implemented since September 2024, the company plans to adopt a co-CEO structure with two internal personnel serving as representative directors starting in June 2025. In addition, two members from the corporate administration division will be appointed as directors to further strengthen the governance framework in pursuit of enhanced corporate value. Shared Research understands while the company has achieved rapid growth by leveraging its venture spirit since its founding, the development of its governance framework had not fully kept pace with its expanding business scale. Following the reforms initiated in September 2024, the company is now transitioning toward a structure that balances growth potential with organizational strength.

Trends and outlook

Quarterly trends and results

Earnings (quarterly)	FY06/24				FY03/25 (nine months)				FY03/26	FY03/26	
(cumulative) (JPYmn)	Q1	Q1-Q2	Q1-Q3	Q1-Q4	Q1	Q1-Q2	Q1-Q3	Q1		% of forecast	FY forecast
Revenue	57,740	108,543	155,626	208,972	21,655	45,613	72,417	36,251		38.2%	95,000
YoY	3.9%	-2.7%	-4.3%	-2.9%	-62.5%	-58.0%	-53.5%	-			-
Cost of revenue	49,120	89,838	126,822	164,398	17,856	36,492	60,240	28,992			
YoY	-3.5%	-9.3%	-11.4%	-11.5%	-63.6%	-59.4%	-52.5%	-			
Cost of revenue ratio	85.1%	82.8%	81.5%	78.7%	82.5%	80.0%	83.2%	80.0%			
Gross profit	8,620	18,704	28,803	44,573	3,799	9,120	12,177	7,258			
YoY	85.3%	50.2%	47.1%	50.5%	-55.9%	-51.2%	-57.7%	-			
Gross profit margin	14.9%	17.2%	18.5%	21.3%	17.5%	20.0%	16.8%	20.0%			
SG&A expenses	3,935	8,647	14,762	21,224	2,465	5,959	8,575	3,616			
YoY	25.0%	14.6%	42.4%	26.2%	-37.4%	-31.1%	-41.9%	-			
SG&A ratio	6.8%	8.0%	9.5%	10.2%	11.4%	13.1%	11.8%	10.0%			
Operating profit	4,684	10,057	14,040	23,349	1,333	3,161	3,602	3,642		60.7%	6,000
YoY	211.0%	104.9%	52.4%	82.4%	-71.5%	-68.6%	-74.3%	-			-
Operating profit margin	8.1%	9.3%	9.0%	11.2%	6.2%	6.9%	5.0%	10.0%			6.3%
Recurring profit	4,518	10,507	14,482	24,894	375	3,289	3,737	4,179		69.7%	6,000
YoY	242.0%	87.6%	39.7%	77.3%	-91.7%	-68.7%	-74.2%	-			-
Recurring profit margin	7.8%	9.7%	9.3%	11.9%	1.7%	7.2%	5.2%	11.5%			6.3%
Net income attributable to owners of the parent	1,744	3,635	5,469	9,530	-578	348	951	1,172		39.1%	3,000
YoY	286.7%	69.2%	45.3%	91.9%	-	-90.4%	-82.6%	-			-
Net margin	3.0%	3.3%	3.5%	4.6%	-	0.8%	1.3%				3.2%
Earnings (quarterly)	FY06/24				FY03/25 (nine months)				FY03/26	FY03/26	
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1		% of forecast	FY forecast
Revenue	57,740	50,803	47,083	53,346	21,655	23,958	26,804	36,251			
YoY	3.9%	-9.3%	-7.9%	1.4%	-62.5%	-52.8%	-43.1%	-			
Cost of revenue	49,120	40,718	36,984	37,576	17,856	18,636	23,748	28,992			
YoY	-3.5%	-15.5%	-16.0%	-11.7%	-63.6%	-54.2%	-35.8%	-			
Cost of revenue ratio	85.1%	80.1%	78.6%	70.4%	82.5%	77.8%	88.6%	80.0%			
Gross profit	8,620	10,084	10,099	15,770	3,799	5,321	3,057	7,258			
YoY	85.3%	29.2%	41.7%	57.1%	-55.9%	-47.2%	-69.7%	-			
Gross profit margin	14.9%	19.8%	21.4%	29.6%	17.5%	22.2%	11.4%	20.0%			
SG&A expenses	3,935	4,712	6,115	6,462	2,465	3,494	2,616	3,616			
YoY	25.0%	7.1%	116.8%	0.2%	-37.4%	-25.8%	-57.2%	-			
SG&A ratio	6.8%	9.3%	13.0%	12.1%	11.4%	14.6%	9.8%	10.0%			
Operating profit	4,684	5,373	3,983	9,309	1,333	1,828	441	3,642			
YoY	211.0%	57.9%	-7.5%	159.2%	-71.5%	-66.0%	-88.9%	-			
Operating profit margin	8.1%	10.6%	8.5%	17.5%	6.2%	7.6%	1.6%	10.0%			
Recurring profit	4,518	5,989	3,975	10,412	375	2,914	448	4,179			
YoY	242.0%	39.9%	-16.5%	183.4%	-91.7%	-51.3%	-88.7%	-			
Recurring profit margin	7.8%	11.8%	8.4%	19.5%	1.7%	12.2%	1.7%	11.5%			
Net income attributable to owners of the parent	1,744	1,891	1,834	4,061	-578	926	603	1,172			
YoY	286.7%	11.4%	13.5%	238.1%	-	-51.0%	-67.1%	-			
Net margin	3.0%	3.7%	3.9%	7.6%	-	3.9%	2.2%	3.2%			

Source: Shared Research based on company data

Notes: FY03/25 is a nine-month fiscal period due to the fiscal year-end change. Accordingly, YoY comparisons for full-year FY03/25 are made against cumulative Q3 results for FY06/24.

Any differences between figures in the table and those in company data are due to rounding.

Revenue by segment (cumulative)

By segment(cumulative) (JPYmn)	FY06/24				FY03/25 (nine months)			FY03/26
	Q1	Q1-Q2	Q1-Q3	Q1-Q4	Q1	Q1-Q2	Q1-Q3	Q1
Revenue	57,740	108,543	155,626	208,972	21,655	45,613	72,417	36,251
YoY	3.9%	-2.7%	-4.3%	-2.9%	-62.5%	-58.0%	-53.5%	-
Solar Panel Manufacturing business	55,495	104,259	148,651	199,874	19,700	40,954	64,348	33,943
YoY	4.2%	-3.0%	-4.8%	-3.4%	-64.5%	-60.7%	-56.7%	-
% of revenue	96.1%	96.1%	95.5%	95.6%	91.0%	89.8%	88.9%	93.6%
Green Energy business	2,066	3,947	6,372	8,341	1,796	4,191	7,442	2,052
YoY	-2.8%	1.0%	2.3%	4.2%	-13.1%	6.2%	16.8%	-
% of revenue	3.6%	3.6%	4.1%	4.0%	8.3%	9.2%	10.3%	5.7%
IT business	161	301	450	590	-	-	-	-
YoY	4.5%	-8.2%	-7.2%	-12.9%	-	-	-	-
% of revenue	0.3%	0.3%	0.3%	0.3%	-	-	-	-
Photocatalyst business	9	19	27	41	-	-	-	-
YoY	-10.0%	5.6%	-6.9%	2.5%	-	-	-	-
% of revenue	0.0%	0.0%	0.0%	0.0%	-	-	-	-
Reportable segments total	57,733	108,527	155,502	208,847	21,497	45,146	71,791	35,995
YoY	3.9%	-2.8%	-4.6%	-3.1%	-	-	-	-
% of revenue	100.0%	100.0%	99.9%	99.9%	99.3%	99.0%	99.1%	99.3%
Other businesses and adjustments	6	15	124	125	158	467	626	256
YoY	20.0%	-	-	-	-	-	-	-
% of revenue	0.0%	0.0%	0.1%	0.1%	0.7%	1.0%	0.9%	0.7%
Operating profit	4,684	10,057	14,040	23,349	1,333	3,161	3,602	3,642
YoY	211.0%	104.9%	52.4%	82.4%	-71.5%	-68.6%	-74.3%	-
Operating profit margin	8.1%	9.3%	9.0%	11.2%	6.2%	6.9%	5.0%	10.0%
Solar Panel Manufacturing business	4,390	10,062	13,978	23,876	1,306	3,295	3,489	3,749
YoY	273.6%	118.2%	56.6%	88.0%	-70.3%	-67.3%	-75.0%	-
% of total	93.7%	100.0%	99.6%	102.3%	98.0%	104.2%	96.9%	102.9%
Segment profit margin	7.9%	9.7%	9.4%	11.9%	6.6%	8.0%	5.4%	11.0%
Green Energy business	494	636	885	532	277	291	752	129
YoY	-4.6%	-5.5%	0.5%	-50.6%	-43.9%	-54.2%	-15.0%	-
% of total	10.5%	6.3%	6.3%	2.3%	20.8%	9.2%	20.9%	3.5%
Segment profit margin	23.9%	16.1%	13.9%	6.4%	15.4%	6.9%	10.1%	6.3%
IT business	21	20	27	40	-	-	-	-
YoY	-	81.8%	58.8%	-14.9%	-	-	-	-
% of total	0.4%	0.2%	0.2%	0.2%	-	-	-	-
Segment profit margin	13.0%	6.6%	6.0%	6.8%	-	-	-	-
Photocatalyst business	-5	-10	0	2	-	-	-	-
YoY	-	-	-	-	-	-	-	-
% of total	-	-	-	0.0%	-	-	-	-
Segment profit margin	-	-	-	4.9%	-	-	-	-
Reportable segments total	4,901	10,708	14,890	24,450	1,583	3,586	4,241	3,879
YoY	190.9%	103.0%	52.0%	77.4%	-	-	-	-
% of total	104.6%	106.5%	106.1%	104.7%	118.8%	113.4%	117.7%	106.5%
Segment profit margin	8.5%	9.9%	9.6%	11.7%	7.4%	7.9%	5.9%	10.8%

Source: Shared Research based on company data

Notes: Any differences between figures in the table and those in company data are due to rounding.

From Q1 FY03/25, the reportable segments are reorganized from the four categories of Solar Panel Manufacturing, Green Energy, IT, and Photocatalyst businesses into two categories: Solar Panel Manufacturing and Green Energy businesses. The IT and Photocatalyst businesses are included under Other businesses.

FY03/25 is a nine-month period due to the change in fiscal year-end. Accordingly, YoY comparisons for full-year FY03/25 are made against cumulative Q3 results for FY06/24.

Profit by segment (by quarter)

By segment(by quarter)	FY06/24				FY03/25 (nine months)			FY03/26
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1
Revenue	57,740	50,803	47,083	53,346	21,655	23,958	26,804	36,251
YoY	3.9%	-9.3%	-7.9%	1.4%	-62.5%	-52.8%	-43.1%	-
Solar Panel Manufacturing business	55,495	48,764	44,392	51,223	19,700	21,254	23,394	33,943
YoY	4.2%	-10.0%	-8.9%	1.2%	-64.5%	-56.4%	-47.3%	-
% of revenue	96.1%	96.0%	94.3%	96.0%	91.0%	88.7%	87.3%	93.6%
Green Energy business	2,066	1,881	2,425	1,969	1,796	2,395	3,251	2,052
YoY	-2.8%	5.6%	4.5%	11.0%	-13.1%	27.3%	34.1%	-
% of revenue	3.6%	3.7%	5.2%	3.7%	8.3%	10.0%	12.1%	5.7%
IT business	161	140	149	140	-	-	-	-
YoY	4.5%	-19.5%	-5.1%	-27.1%	-	-	-	-
% of revenue	0.3%	0.3%	0.3%	0.3%	-	-	-	-
Photocatalyst business	9	10	8	14	-	-	-	-
YoY	-10.0%	25.0%	-27.3%	27.3%	-	-	-	-
% of revenue	0.0%	0.0%	0.0%	0.0%	-	-	-	-
Reportable segments total	57,733	50,794	46,975	53,345	21,497	23,649	26,645	35,995
YoY	3.9%	-9.5%	-8.3%	1.4%	-	-	-	-
% of revenue	100.0%	100.0%	99.8%	100.0%	99.3%	98.7%	99.4%	99.3%
Other businesses and adjustments	6	9	109	1	158	309	159	256
YoY	20.0%	-	-	-	-	3333.3%	45.9%	-
% of revenue	0.0%	0.0%	0.2%	0.0%	0.7%	1.3%	0.6%	0.7%
Operating profit	4,684	5,373	3,983	9,309	1,333	1,828	441	3,642
YoY	211.0%	57.9%	-7.5%	159.2%	-71.5%	-66.0%	-88.9%	-
Operating profit margin	8.1%	10.6%	8.5%	17.5%	6.2%	7.6%	1.6%	10.0%
Solar Panel Manufacturing business	4,390	5,672	3,916	9,898	1,306	1,989	194	3,749
YoY	273.6%	65.0%	-9.2%	162.3%	-70.3%	-64.9%	-95.0%	-
% of total	93.7%	105.6%	98.3%	106.3%	98.0%	108.8%	44.0%	102.9%
Segment profit margin	7.9%	11.6%	8.8%	19.3%	6.6%	9.4%	0.8%	11.0%
Green Energy business	494	142	249	-353	277	14	461	129
YoY	-4.6%	-8.4%	19.7%	-	-43.9%	-90.1%	85.1%	-
% of total	10.5%	2.6%	6.3%	-	20.8%	0.8%	104.5%	3.5%
Segment profit margin	23.9%	7.5%	10.3%	-	15.4%	0.6%	14.2%	6.3%
IT business	21	-1	7	13	-	-	-	-
YoY	-	-	16.7%	-56.7%	-	-	-	-
% of total	0.4%	-	0.2%	0.1%	-	-	-	-
Segment profit margin	13.0%	-	4.7%	9.3%	-	-	-	-
Photocatalyst business	-5	-5	10	2	-	-	-	-
YoY	-	-	-	-	-	-	-	-
% of total	-	-	0.3%	0.0%	-	-	-	-
Segment profit margin	-	-	125.0%	14.3%	-	-	-	-
Reportable segments total	4,901	5,807	4,182	9,560	1,583	2,003	655	3,879
YoY	190.9%	61.8%	-7.5%	139.5%	-	-	-	-
% of total	104.6%	108.1%	105.0%	102.7%	118.8%	109.6%	148.5%	106.5%
Segment profit margin	8.5%	11.4%	8.9%	17.9%	7.4%	8.5%	2.5%	10.8%

Source: Shared Research based on company data

Notes: Any differences between figures in the table and those in company data are due to rounding.

From Q1 FY03/25, the reportable segments are reorganized from the four categories of Solar Panel Manufacturing, Green Energy, IT, and Photocatalyst businesses into two categories: Solar Panel Manufacturing and Green Energy businesses. The IT and Photocatalyst businesses are included under Other businesses.

Q1 FY03/26 results

The company changed its fiscal year-end from June to March, effective FY03/25. As a result, FY03/25 was a nine-month fiscal period (July 1, 2024 to March 31, 2025). Accordingly, there are no YoY comparisons for Q1 FY03/26 results.

- Revenue: JPY36.3bn (38.2% of full-year company forecast)
- Operating profit: JPY3.6bn (60.7%)
- OPM: 10.0%
- Recurring profit: JPY4.2bn (69.7%)
- Net income attributable to owners of the parent: JPY1.2bn (39.1%)

In Q1 FY03/26, the company reported revenue of JPY36.3bn, operating profit of JPY3.6bn, recurring profit of JPY4.2bn, and net income attributable to owners of the parent of JPY1.2bn, with an OPM of 10.0%. In its core Solar Panel Manufacturing business, global demand remained strong; however, in the US market, the government issued a final decision to impose anti-dumping (AD) and countervailing duties (CVD) on imports from four Southeast Asian countries, while uncertainty persisted around other tariff and policy measures.

Amid these operating conditions, the group has sought to maximize sales to the US through negotiations with customers while also strengthening sales to Asian markets such as India. Looking ahead to future earnings growth, production began in April at its new solar cell plant in Ethiopia (Phase 1), with sales to customers progressing smoothly. Backed by robust demand, the company plans to start Phase 2 production during Q2 FY03/26. Solar cells manufactured in Ethiopia also benefit from relatively lower tariff rates upon import into the US, enabling the company to supply products to its new solar panel plant under construction in Texas while also expanding sales to external customers. Through these initiatives, the company aims to

establish a stable supply structure for solar panel-related products in the US market and expand its Solar Panel Manufacturing business in the country.

Progress against the company's full-year FY03/26 forecast stood at 38.2% for revenue, 60.7% for operating profit, and 39.1% for net income attributable to owners of the parent. The company has not revised its full-year FY03/26 forecast.

Results in key reportable segments

Solar Panel Manufacturing business

- Revenue: JPY33.9bn
- Segment profit: JPY3.7bn
- Segment profit margin: 11.0%

In Q1 FY03/26, the Solar Panel Manufacturing business generated revenue of JPY33.9bn and segment profit of JPY3.7bn. In the US market, although a decision was made to impose AD and CVD on solar panel-related products, a 90-day grace period from April 9, 2025 was granted for certain countries, including Vietnam. This led to front-loaded demand from US customers for products supplied by VSUN and TOYO SOLAR in Vietnam. At the same time, sales to Asian customers, particularly in India, remained firm, enabling the company to secure a solid level of revenue.

Supported by firm revenue, operating profit exceeded the company's forecast as the company was able to absorb higher upfront costs related to the construction of new plants in Ethiopia and Texas, US. In this business, the group is working to strengthen its supply chain resilience and competitiveness by establishing a three-region framework spanning Vietnam, Ethiopia, and the US, taking geopolitical risks into account. As a result, the company expects the impact of future US import tariffs to be limited. Note that earnings from the new solar cell plant in Ethiopia, which began sales to customers worldwide in April–June, will be reflected starting from the 1H results.

US tariff measures

The US market, a key sales region for the company, has been subject to multiple tariff measures on solar panel-related products. In 2018, under the Trump administration, the US imposed safeguard measures restricting solar power product imports. In 2022, the Biden administration extended these measures for another four years. However, due to strong domestic demand for solar panels, the US implemented a two-year tariff exemption starting in June 2022, allowing duty-free imports from four Southeast Asian countries (Cambodia, Malaysia, Thailand, and Vietnam). This exemption ended in June 2024 to support domestic industry development and prevent circumvention of tariffs on Chinese products. As a result, these four countries became subject to an investigation in May 2024 to determine whether to impose anti-dumping and countervailing duties. After preliminary decisions in October and November 2024, the final decision was made in April 2025. Ultimately, the tariff rates imposed on VSUN were set at 79.92% for AD and 124.57% for CVD, effective from June 24, 2025.

In April 2025, the US announced plans to impose a 46% tariff on imports from Vietnam. Following negotiations between the two countries, a 90-day grace period was granted. In July, the two sides reached an agreement, under which President Trump announced that beginning in August 2025, a 20% tariff would be applied to exports from Vietnam to the US and a 40% tariff would be imposed on goods transshipped through third countries.

As both of the above tariff measures had not yet taken effect during Q1, Shared Research believes that there was rush demand for solar panels and cells. It should be noted that Ethiopia is not subject to country-specific tariffs and has been subject only to the baseline 10% tariff since April 2025.

In the US, the One Big Beautiful Bill Act (OBBB Act) was passed by the House of Representatives on May 22, 2025, by the Senate on July 2, and enacted on July 4. While the OBBB Act is a large-scale tax and spending package, it also significantly reduces or abolishes many of the tax credits for renewable energy investment that had been introduced under the Biden administration's Inflation Reduction Act (IRA). Although the Senate's amended version included some partial reversals, Shared Research views the overall direction as a potential turning point in policies supporting renewable energy. Under the OBBB Act, tax credits remain available in principle for clean energy production from solar and wind projects that begin operation by 2027, indicating that short-term impacts should be limited. That said, the situation will need to be monitored closely going forward.

The company's strategy

While the renewable energy market is expected to see significant growth over the medium to long term, market conditions tend to fluctuate due to policy changes in various countries, as noted above. To address this, the company is taking measures in both sales and manufacturing. On the sales front, it is shifting its focus from a US-centered sales strategy to expanding panel and cell sales in Europe and India. On the manufacturing front, the company established a new cell plant in Ethiopia and relocated part of its cell production capacity (2GW) from Vietnam. Furthermore, it plans to build a panel factory in the US by end-2025. According to the company, demand is strong for cells produced in Ethiopia, as they are free from Chinese capital involvement and only minimally affected by tariffs. Meanwhile, for cells and panels produced in Vietnam, where export profitability to North America has deteriorated due to tariffs, the company is shifting its focus to strengthening sales in Asian markets such as India.

Green Energy business

- Revenue: JPY2.1bn
- Segment profit: JPY129mn
- Segment profit margin: 6.3%

In Q1 FY03/26, the Green Energy business recorded revenue of JPY2.1bn and segment profit of JPY129mn. Led mainly by WWB and Valors, the group engages in a one-time revenue business involving sales of solar power plants as well as components for solar power systems, such as panels, power conditioners (PCS), and industrial and residential storage batteries. At the same time, it operates a recurring revenue business model aimed at building a stable income base by continuing to own and manage plants after completion, funded by electricity sales revenue. In the one-time revenue business, sales through major domestic mass retailers remained firm. In the recurring revenue business, the company is working to expand its business base by leveraging its in-house development capabilities to develop and construct high-quality solar power projects. It is also actively pursuing development and construction of non-FIT power plants and M&A, while striving to build an optimal portfolio to further strengthen its earnings base.

In addition, the group is actively pursuing overseas expansion and, as part of its response to the future social challenge of solar panel disposal, is developing a solar panel reuse business centered on PV Repower inc. In Hokkaido, the group has also entered the grid storage battery business, which enables stable power supply for grid balancing and during outages. The company plans to focus on securing additional projects in the grid storage battery business.

Equity ratio

At end-June 2025, the equity ratio rose to 18.4%, up from 16.6% at end-FY03/25. To ensure financial soundness, the company plans to strengthen its equity further by increasing retained earnings, focusing on the Solar Panel Manufacturing and Green Energy businesses.

Full-year company forecast

Full-year company forecast

	FY06/24			FY03/25 (nine months)			FY03/26
(JPYmn)	1H results	2H results	FY results	1H results	2H results	FY results	FY forecast
Revenue	108,543	100,429	208,972	45,613	26,804	72,417	95,000
YoY	-2.7%	-3.2%	-2.9%	-58.0%	-	-	-
Operating profit	10,057	13,292	23,349	3,161	441	3,602	6,000
YoY	104.9%	68.3%	82.4%	-68.6%	-	-	-
Operating profit margin	9.3%	13.2%	11.2%	6.9%	1.6%	5.0%	6.3%
Recurring profit	10,507	14,387	24,894	3,289	448	3,737	6,000
YoY	87.6%	70.5%	77.3%	-68.7%	-	-	-
Recurring profit margin	9.7%	14.3%	11.9%	7.2%	1.7%	5.2%	6.3%
Net income attributable to owners of the parent	3,635	5,895	9,530	348	603	951	3,000
YoY	69.2%	109.3%	91.9%	-90.4%	-	-	-
Net margin	3.3%	5.9%	4.6%	0.8%	2.2%	1.3%	3.2%

Source: Shared Research based on company data

Notes: FY03/25 will be a nine-month fiscal period due to the fiscal year-end change. As a result, YoY comparisons for 2H and full-year results are not available.

Any differences between figures in the table and those in company data are due to rounding.

FY03/26 company forecast

- Revenue: JPY95.0bn
- Operating profit: JPY6.0bn
- OPM: 6.3%

- Recurring profit: JPY6.0bn
- Net income attributable to owners of the parent: JPY3.0bn

For FY03/26, the company forecasts revenue of JPY95.0bn, operating profit of JPY6.0bn, recurring profit of JPY6.0bn, and net income attributable to owners of the parent of JPY3.0bn. In April 2025, the company conducted a share buyback through its consolidated subsidiary, Fuji Solar. As a result, its ownership stake in VSUN increased from 44.4% as of end-March 2025 to 69.2% as of end-June 2025. The FY03/26 forecast reflects the impact of this change.

The company is working to advance future growth investments and business development in line with its management strategy, while also aiming to strengthen its financial position. With regard to shareholder returns, it maintains a basic policy of paying stable dividends. The interim and year-end dividends for FY03/26 have not yet been determined. The company plans to announce them once it has assessed its earnings performance and financial condition. Although the dividend forecast for FY03/25 was also initially undecided, the company ultimately declared an annual dividend of JPY3 per share.

Results by segment are as follows.

Solar Panel Manufacturing business

- Revenue: JPY85.0bn
- Segment profit: JPY5.5bn

The company believes that global efforts to address climate change will continue to accelerate the adoption of renewable energy worldwide. As a result, it expects the solar power generation market to grow steadily over the medium to long term. However, since the year before last, an oversupply of solar-related products has weakened market conditions. In the US market—the company's primary sales destination—the US government issued its final decision in April 2025 to impose AD and CVD on imports from Vietnam, which is expected to affect VSUN. In addition, the US government has introduced a baseline tariff of 10% on virtually all imported goods from all countries, and has also decided to impose reciprocal tariffs on selected countries, including Vietnam (with enforcement temporarily suspended for 90 days starting April 9, 2025). Given the ongoing volatility in the international environment, there remains considerable uncertainty surrounding US tax and trade policy. In the US, investment had been accelerating under the Inflation Reduction Act (IRA) and other measures, but with the enactment of the OBBB Act, the situation is changing. The company is closely monitoring how future energy policy developments may affect its group businesses.

The Abalance group intends to continue to diversify sales channels for VSUN's solar panels manufactured in Vietnam and TOYO SOLAR's cells, with a focus on expanding into Europe, India, and other Asian markets. TOYO has completed Phase 1 of its new solar cell plant in Awasa, Sidama Region, Federal Democratic Republic of Ethiopia. Backed by strong demand, the company has decided to increase production capacity and plans to begin Phase 2 operations by Q2 FY03/26. In addition to supplying products to its new solar panel plant under construction in Texas, the company will also strengthen sales to external customers. It aims to establish a stable supply structure for solar panel-related products in the US and expand its solar panel manufacturing business. The company plans to finance capital investments primarily through a combination of internal funds and loans from financial institutions.

The company expects revenue in the Solar Panel Manufacturing business to reach JPY85.0bn in FY03/26. It plans to drive revenue growth by increasing shipment volumes through expanded sales channels and by launching production at its US panel plant, which will help reinvigorate sales in the US market. The company also forecasts segment profit of JPY5.5bn. Earnings from the Ethiopian cell plant and US panel plant will be reflected in consolidated results with a three-month lag, while earnings from the Vietnam operations will be included without delay. As a result, it expects the revenue and profit contribution from the new facilities in Ethiopia and the US to become more apparent in 2H FY03/26. The company also expects the utilization rates of the plants to increase gradually, as it will take time to optimize operations.

Green Energy business

The Abalance group is strengthening its recurring revenue business by retaining ownership of solar power plants and selling electricity to power companies. In addition to actively developing and constructing non-FIT power plants, the group is also pursuing M&A opportunities to expand its earnings base and working to build an optimal asset portfolio to enhance profitability. In its one-time revenue business, which involves providing solar power-related services, the group is expanding sales of solar and storage systems through partnerships with major domestic retail chains targeting their customer bases. The group is also accelerating overseas expansion and taking proactive steps to address the anticipated future issue of solar panel disposal. As part of its commitment to solving social issues, it continues to promote solar panel reuse initiatives. Furthermore, the group has entered the grid storage battery business in Hokkaido to help ensure stable electricity supply in response to

demand fluctuations and potential power outages. Its grid-scale storage facility in Ishikari is scheduled to begin operations in 2026. In addition, Hokkaido Sapporo Battery Energy Storage LLC—established jointly with nine companies, including WWB—plans to launch operations at the Hokkaido Sapporo Battery Energy Storage Plant in April 2027. The group aims to secure additional projects as it expands its presence in the grid storage business as a recurring-revenue model.

The company announced its entry into the grid storage business in April 2023. The growing adoption of renewable energy—particularly solar power, which has inherently variable output—has heightened the importance of storage batteries for stabilizing electricity supply. More recently, advances in battery technology have reduced installation costs, making the grid storage business a high-potential field with strong prospects for future market growth.

Medium-term management plan

Medium-term management plan

In September 2023, the company announced its medium-term management plan (2024–26), with FY06/26 as the final year. However, in August 2024, the company withdrew its numerical targets due to significant changes in its business environment. The company remains committed to growing its business in the global solar panel market, which is expected to continue expanding. To achieve this, it plans to respond swiftly to market and policy changes, build a competitive supply chain in its Solar Panel Manufacturing business, and diversify its sales areas. The company intends to disclose new numerical targets once they can be reasonably calculated.

Medium-term management plan numerical targets announced in September 2023 (withdrawn in August 2024)

Medium-term management plan (announced in September 2023 and withdrawn in August 2024)

	FY06/23	FY06/24 (Company forecast)				FY06/25 (Company forecast)				FY06/26 (Company forecast)				CAGR
(JPYmn)	Results	YoY	YoY change	% of total	YoY	YoY change	% of total	YoY	YoY change	% of total	YoY	YoY change	% of total	
Revenue	215,284	251,800	17.0%	36,516	100.0%	301,800	19.9%	50,000	100.0%	355,800	17.9%	54,000	100.0%	18.2%
Solar Panel Manufacturing business	206,811	239,000	15.6%	32,189	94.9%	287,000	20.1%	48,000	95.1%	338,000	17.8%	51,000	95.0%	17.8%
Domestic business (one-time revenue)	5,270	7,800	48.0%	2,530	3.1%	8,800	12.8%	1,000	2.9%	9,800	11.4%	1,000	2.8%	23.0%
Domestic business (recurring revenue)	3,200	5,000	56.3%	1,800	2.0%	6,000	20.0%	1,000	2.0%	8,000	33.3%	2,000	2.2%	35.7%
Operating profit	12,804	15,800	23.4%	2,996	6.3%	25,800	63.3%	10,000	8.5%	30,800	19.4%	5,000	8.7%	34.0%
Recurring profit	14,038	15,800	12.6%	1,762	6.3%	25,800	63.3%	10,000	8.5%	30,800	19.4%	5,000	8.7%	29.9%
Net income attributable to owners of the parent	4,965	7,000	41.0%	2,035	2.8%	-	-	-	-	-	-	-	-	-
Equity ratio	8.8%									20.0%				-

Source: Shared Research based on company data.

Notes: The domestic business (one-time revenue) includes revenue from power plant sales and goods (such as panels and batteries) by domestic group companies, as well as sales in the IT and Photocatalyst businesses. The domestic business (recurring revenue) includes revenue from electricity sales in the Green Energy business and stable revenue from operation and maintenance (O&M), and other revenue streams that form the source of cash flow.

The unit price of solar panels is at risk of falling below the planned value if there is a global decline in panel prices, which would cause a drop in sales prices.

The fourth solar panel plant is expected to gradually improve its utilization rate in line with the progress of in-house production of cells, which are key components.

As for the impact of additional tariff measures on solar power generation products (cells and panels) in the US, the company has not factored it in at this point in time as it is difficult to foresee sufficiently.

Business

Business overview

The Abalance group comprises the parent company Abalance, consolidated subsidiaries, and affiliates. As a holding company, Abalance oversees and controls group management, while subsidiaries handle business operations. Key consolidated subsidiaries as of end-June 2024 are as follows. In the Solar Panel Manufacturing business, the group includes Vietnam Sunergy Joint Stock Company (VSUN), which primarily produces solar panels, and TOYO (NASDAQ-listed), which owns Cell Company (now TOYO SOLAR Company Limited) as a subsidiary for solar cell production, along with TOYO's affiliates. In the Green Energy business, the group includes WWB Corporation, Valors Corporation, and several solar power generation project companies.

Main consolidated subsidiaries (end-March 2025)

Name	Paid-in capital/capital contributions	Primary business	% of voting rights/stake (%)
1 Vietnam Sunergy Joint Stock Company	VND608,600mn	Solar Panel Manufacturing business	*44.37
2 TOYO Co., Ltd	USD6,010,000	Solar Panel Manufacturing business	45.45
3 TOYO SOLAR Co., Ltd	VND1,162,300mn	Solar Panel Manufacturing business	45.45
4 TOPTOYO INVSTMENT PTE.LTD.	USD10,000	Solar Panel Manufacturing business	45.45
5 TOYO China Co., LTD	JPY10mn	Solar Panel Manufacturing business	45.45
6 TOYO AMERICA LLC	USD10,000	Solar Panel Manufacturing business	45.45
7 TOYO SOLAR MANUFACTURING ONE MEMBER PLC	USD30,230,000	Solar Panel Manufacturing business	45.45
8 TOYO Solar Texas LLC	USD2,957,000	Solar Panel Manufacturing business	34.09
9 Fuji Solar Co., Ltd.	JPY1mn	Solar Panel Manufacturing business	51.00
10 WWB Corporation	JPY100mn	Green Energy business	100.00
11 Valors Corporation	JPY100mn	Green Energy business	99.95
12 Companio Solar Co., Ltd.	JPY1mn	Green Energy business	99.95
13 Japan Mirai Energy Co., Ltd	JPY30mn	Green Energy business	100.00
14 J.MIRAI Co., Ltd.	JPY3mn	Green Energy business	100.00
15 WWB Solar 03 LLC	JPY100mn	Green Energy business	100.00
16 Flex Holdings Co., Ltd.	JPY30mn	Green Energy business	100.00
17 PV Repower inc.	JPY10mn	Green Energy business	51.00
18 Kakuda Electric Fuel Development Silent Partnership	-	Green Energy business	100.00
19 Ohira Village Solar Power Plant Anonymous Partnership	-	Green Energy business	100.00

Source: Shared Research based on company data

*Abalance's ownership interest in VSUN was 69.2% as of end-June 2025.

The company's reportable segments are categorized into two main business areas: Green Energy and Solar Panel Manufacturing. Additionally, under Other businesses, the company operates IT, photocatalyst, and activities involving the purchase, sale, and rental of construction machinery.

- ▶ Solar Panel Manufacturing business: In addition to manufacturing and selling solar panels, the company engages in the production and sale of upstream components, including cells, wafers, and ingots.
- ▶ Green Energy business: The company engages in the sale of solar power plants and related equipment and goods (one-time revenue business) and electricity sales from company-owned solar power plants (recurring revenue business).

Abalance's mainstay businesses are Solar Panel Manufacturing and Green Energy, each accounting for 88.9% and 10.3% of consolidated revenue in FY03/25, respectively. Solar Panel Manufacturing made up 82.3% of operating profit before adjustments and inclusion of Other businesses, while Green Energy accounted for 17.7%. Segment profit margins stood at 5.4% for Solar Panel Manufacturing and 10.1% for Green Energy.

Revenue and segment profit compositions by reportable segment

(JPYmn)	FY03/25 (nine months)				
	Revenue		Segment profit		Segment profit margin
		% of total		% of total	
Reportable segment					
Solar Panel Manufacturing business	64,348	88.9%	3,489	82.3%	5.4%
Green Energy business	7,442	10.3%	752	17.7%	10.1%
Reportable segments total	71,791	99.1%	4,241	100.0%	5.9%
Other	638	0.88%	-10		-
Adjustments	-12	0.0%	-629		-
Total	72,417	100.0%	3,602		5.0%

Source: Shared Research based on company data

Business overview by reportable segment

Solar Panel Manufacturing business (88.9% of consolidated revenue in FY03/25)

Major subsidiaries VSUN and TOYO manufacture and sell solar panels. VSUN procures raw materials from Europe, the US, and Asia, manufactures solar panels at its plants in Vietnam, and sells them overseas, mainly to the US, Europe and Asia directly or through overseas branches with sales branch functions.

While the top positions in the global solar panel manufacturer rankings are dominated by Chinese companies, VSUN maintains the largest production volume among the Japanese players.

Overview

Solar Panel Manufacturing business is operated by VSUN and TOYO. VSUN was founded in June 2015 and is headquartered in Bac Giang Province, Northeast Vietnam. It operates four panel manufacturing plants in Vietnam with a total annual production capacity of 4GW. In April 2024, it also began operations at a new ingot and wafer plant with an annual capacity of 4GW. TOYO operates a 2GW cell manufacturing plant in Vietnam through its subsidiary TOYO SOLAR Company Limited (formerly Vietnam Sunergy Cell Company Limited). As of March 2025, the group's production capacity included 4GW for solar panels and 4GW for ingots and wafers at VSUN, and 2GW for solar cells at TOYO. In addition, TOYO began production of solar cells at a new plant in Ethiopia in April 2025, with Phase 1 capacity of 2GW.

Production capacity

VSUN has plants in Vietnam (in the Bac Giang and Bac Ninh Provinces) dedicated to the manufacture of solar panels. At end-FY03/25, annual production capacity expanded to a total of 4GW with the July 2021 commencement of operations at the third plant (annual production capacity of 1GW; capital expenditure of USD12mn) and the fourth plant (2.4GW; approximately USD30mn) in January 2023. Furthermore, a new wafer and ingot production plant with an annual capacity of 4GW began operations in April 2024.

TOYO SOLAR produces solar cells, a key component in solar panel manufacturing. In October 2023, it completed a cell plant with an annual production capacity of 4GW, with a total investment of approximately JPY27.0bn. TOYO SOLAR had considered a Phase 2 expansion (an additional 4GW), but in August 2024, it suspended the plan in light of changing market conditions, particularly in the US solar panel market. Instead, it shifted 2GW of the planned capacity from the Vietnam plant to a newly built facility in Ethiopia. The Ethiopian plant, with a Phase 1 capacity of 2GW (approx. JPY9.0bn in investment), was completed in March 2025 and began operations in April. TOYO SOLAR estimates full-capacity revenue (based on a certain utilization rate) at USD135mn. It plans to launch Phase 2 expansion (an additional 2GW; approx. JPY7.0bn) during July–September 2025.

TOYO SOLAR selected Ethiopia as its new solar cell production base in response to increasing tariff-related issues in exporting panels and cells from Vietnam to the US. According to the company, Ethiopia offers several advantages, including well-developed infrastructure such as electricity, low labor costs, and, as of May 2025, no risk of anti-dumping or countervailing duties being imposed on exports to the US. Orders for Ethiopia-made cells—largely unaffected by tariff measures—have been strong, prompting the company to move forward with its Phase 2 investment. The company plans to export these cells primarily to its planned panel factory in the US, while also selling them externally to meet growing demand.

Meanwhile, to operate in the US market, the company determined a domestic manufacturing presence would be essential. TOYO, the parent company of TOYO SOLAR, is therefore constructing a new solar panel factory in the US with an annual production capacity of 2.5GW, scheduled to be completed by end-2025. In Phase 1, the company plans to secure 1GW of capacity by mid-2025 (investment of approximately JPY4.5bn), followed by an additional 1.5GW by year-end (approximately JPY9.0bn), bringing the total capacity to 2.5GW.

Production capacity trends and plan

Annual production capacity (GW)	End-June 2023	End-June 2024	End-March 2025	End-March 2026 plan
Panels	5.0	4.0	4.0	6.5
Vietnam	5.0	4.0	4.0	4.0
The US	-	-	-	2.5
Cells	-	4.0	2.0	6.0
Vietnam	-	4.0	2.0	2.0
Ethiopia	-	-	-	4.0
Ingots and wafers (Vietnam)	-	4.0	4.0	4.0
Total	5.0	12.0	10.0	16.5

Source: Shared Research based on company data

Electrical power is measured in terms of watts: one gigawatt (GW) equals one thousand megawatts (MW), which equals one million kilowatts (kW), or one billion watts (W). A typical reactor at a nuclear power plant can produce around one gigawatt of electricity, enough to power roughly 300,000 homes. Kilowatt hour (kWh) refers to the measure of energy equivalent to the expenditure of one kilowatt (1kW=1,000W) for one hour.

Production plants



Source: Company materials

Note: Panel factory in Vietnam (left); cell plant in Ethiopia (right)

Solar panel manufacturing processes

The main manufacturing processes for solar panels begin with the creation of a silicon block called ingot. The ingot is then sliced to make silicon wafers, which are subsequently formed into solar cells. Multiple solar cells are then assembled to make solar panels (also referred to as solar modules). In Solar Panel Manufacturing business of the Abalance group, in addition to solar panel production, which is the final step in the process, a cell plant began operations in October 2023, and a wafer plant started in April 2024.

VSUN's solar panels

Although VSUN's production scale is still small compared to major manufacturers, it is top among Japanese manufacturers, gaining recognition from third-party organizations not only for the quality, reliability, and functionality of its solar panels, but also in terms of its procurement standards. It has also cleared the strict quality standards of major purchasers such as French petroleum company TotalEnergies SE (NYSE: TTE; Euronext: TTE) and French energy and gas company Engie SA (Euronext: ENGI).

From 2021 to 2025, VSUN was selected as a Top Performer in the PV Module Reliability Scorecard (released by US-based PV Evolution Labs [PVEL]) for three consecutive years. Also, in an assessment conducted by EcoVadis—a global rating agency based in France that assesses companies' sustainable sourcing including their action toward human rights issues, VSUN was awarded a Bronze Medal for the second consecutive year since 2021.

The PV Module Reliability Scorecard is a report released since 2012 by US-based independent organization PV Evolution Labs (PVEL) , which tests the reliability and performance of solar panels. The report outlines the results of tests conducted by PVEL annually under its product certification program, based on which the brands producing solar panels of superior reliability and durability are certified as Top Performers. (<https://modulescorecard.pvel.com/top-performers/>).

EcoVadis is a global third-party organization that comprehensively evaluates the CSR activities and sustainability of companies with global supply chains in the four areas of the environment, labor and human rights, ethics, and sustainable procurement. Supply chains rated above a certain level in this assessment are socially recognized as being free of particular risks, and in recent years the results of the assessment have been widely used in the United States, Europe, and Japan.

Abalance has been disclosing the key financial information on VSUN (a specified subsidiary) in its annual securities report since FY06/21. In FY03/25 (nine months), VSUN accounted for 76.6% of consolidated revenue. For the same period, VSUN reported revenue of JPY55.4bn, recurring profit of JPY5.0bn, and an RPM of 9.1%.

According to TOYO's financial results for FY12/24, following its NASDAQ listing in July 2024, it posted revenue of USD177mn (+183.7% YoY). Of this, USD127mn came from sales to affiliated companies (+106.9% YoY), and USD50mn came from sales to third parties (up from USD1mn in FY12/23). Operating profit declined 26.1% YoY to USD9mn. Meanwhile, net income rose significantly, boosted by non-operating income associated with a decrease in the fair value of earn-out shares—contingent equity to be paid based on future performance—issued in connection with its SPAC listing.

VSUN earnings trends

Vietnam Sunergy Joint Stock Company	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Parent	Parent
Revenue						21,013	67,429	206,811	78,240	55,436
YoY	-	-	-	-	-	-	220.9%	206.7%	-	-
% of consolidated revenue	-	-	-	-	-	78.1%	73.2%	96.1%	37.4%	76.6%
Recurring profit						785	1,307	13,879	9,616	5,025
YoY	-	-	-	-	-	-	66.5%	961.9%	-	-
Recurring profit margin	-	-	-	-	-	3.7%	1.9%	6.7%	12.3%	9.1%
% of consolidated recurring revenue	-	-	-	-	-	61.9%	92.2%	98.9%	38.6%	134.5%
Net income						718	1,213	12,208	7,873	4,699
YoY	-	-	-	-	-	-	68.9%	906.4%	-	-
Net margin	-	-	-	-	-	3.4%	1.8%	5.9%	10.1%	8.5%
% of consolidated net income	-	-	-	-	-	77.1%	77.9%	102.3%	39.0%	157.5%
Net assets						2,762	5,222	18,217	28,513	35,646
YoY	-	-	-	-	-	-	89.1%	248.9%	-	-
% of consolidated net assets	-	-	-	-	-	57.8%	65.7%	80.0%	67.2%	82.3%
Total assets						16,894	44,967	104,666	85,975	97,555
YoY	-	-	-	-	-	-	166.2%	132.8%	-	-
% of consolidated total assets	-	-	-	-	-	42.9%	52.8%	72.8%	57.3%	66.9%
Equity ratio	-	-	-	-	-	16.3%	11.6%	17.4%	33.2%	36.5%
ROE(Net income)	-	-	-	-	-	26.0%	23.2%	67.0%	27.6%	13.2%
ROA (Net income)	-	-	-	-	-	4.3%	2.7%	11.7%	9.2%	4.8%

Source: Shared Research based on company data

TOYO earnings trends

TOYO	FY12/23	FY12/24
(USDmn)	Cons.	Cons.
Revenue	62.4	177.0
YoY		183.7%
Affiliated companies	61.5	127.3
YoY		106.9%
Third parties	0.9	49.7
YoY		-
Operating profit	12.0	8.9
YoY		-26.1%
Operating profit margin	19.2%	5.0%
Net income attributable to owners of the parent	9.9	40.6
YoY		310.7%
Net margin	15.9%	23.0%
Total assets	238.3	239.8
Liabilities	181.4	180.4
Net assets	56.9	59.4
Equity ratio	23.9%	24.7%
Net D/E ratio	-0.1	1.0
ROE (Net income)		69.9%
ROA (Net income)		17.0%

Source: Shared Research based on company data

Green Energy business (10.3% of consolidated revenue in FY03/25)

In this business, the company trades solar power plants, sells solar panels and related products, owns power plants, and also engages in the development, construction, operation, and maintenance work associated with solar plants. WWB, Valors, and other consolidated subsidiaries and equity-method affiliates are charged with the actual business operations. The Green Energy segment further breaks down into the one-time revenue business and the recurring revenue business, each accounting for 39.8% and 60.1% of segment revenue in FY03/25, respectively.

Recurring revenue business

In this business, the company uses the solar power plants under its ownership to generate electricity, which it sells to power utilities. The company either develops these facilities on its own or acquires them from other parties through M&A. The electricity being sold mainly falls under the feed-in tariff (FIT) scheme (see below for details). In addition, the company has entered the grid storage battery business in Hokkaido to support stable power supply for demand adjustment and in case of power outages. It plans to secure additional projects in the grid storage battery business.

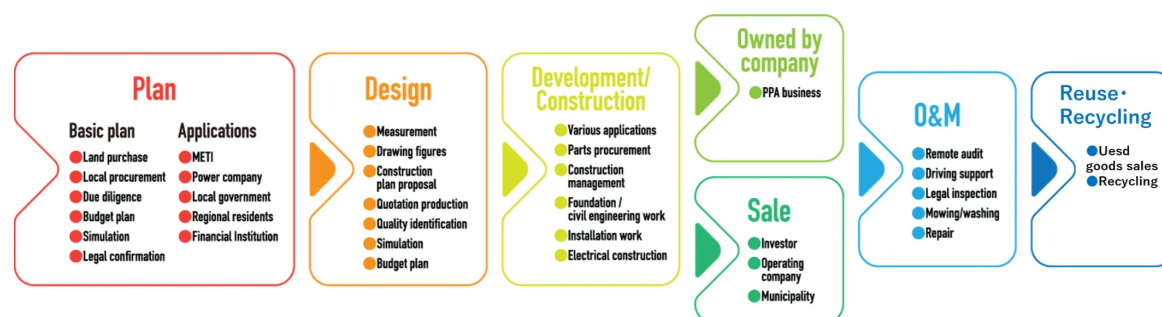
Solar power plants in operation

The company has so far focused on the ownership of power plants that utilized the FIT scheme, but will also focus efforts on feed-in premium (FIP) schemes, self-consumption, and other non-FIT projects.

One-time revenue business

In this business, the company trades a wide range of power generation facilities (home-use, industrial, pre-used, and other) and sells goods associated with power generation equipment. It also offers end-to-end solar energy solutions to companies and households through direct sales, agents, and other channels.

End-to-end services



Source: Shared Research based on company data

Customers

Customers in the Green Energy recurring revenue business are the buyers of electricity generated by the company's power plants. For power plants operating under the FIT scheme, they are power utilities. In the one-time revenue business, investors are the primary counterparts in power plant trades. Companies and consumers are the customers for solar panel products, which the company sells directly and through distributors.

VSUN sells industrial and home-use solar panels to Solar Panel Manufacturing customers mainly in the US, Europe, and Asia.

Sales channels

Sales in the Green Energy recurring revenue business is mainly handled by WWB. In the one-time revenue business, the company engages in power plant trades, sells power generation facility-related products, and provides end-to-end solutions from power plant planning to operation and maintenance, mainly through direct sales using the distributors/agents of WWB and Valors.

In the Solar Panel Manufacturing business, the company sells industrial and residential solar panels and cells to the US, Europe, India, Taiwan, and other regions, either directly through VSUN and TOYO or via overseas branches. The group has overseas branches in the US, Germany, and China.

Earnings structure

Revenue

In the Green Energy recurring revenue business, the company generates revenue from its solar power plants operating under the FIT scheme. Here, revenue is a function of power generation income per kWh and the volume of electricity sold. The company does not disclose the amount of electricity it sells. The one-time revenue business comprises mainly total product sales related to solar power generation in the Green Energy business.

Revenue in the Solar Panel Manufacturing business is a function of the unit price of solar panels and the sales volume, but the company does not disclose figures such as its solar panel shipment volume.

Revenue trends

By reportable segment, in FY06/16, Construction Machinery Sales accounted for 11.2% of revenue, IT business 2.0%, and Green Energy business (Solar Power Generation business until FY06/17) 86.8%. In FY06/21, the Solar Panel Manufacturing and Photocatalyst businesses—formerly under Other businesses—were reclassified and added as a new reportable segment in line with the conversion of VSUN to a consolidated subsidiary, resulting in four reportable segments. However, starting in FY03/25, the company streamlined its reportable segments to two: Solar Panel Manufacturing and Green Energy.

Revenue by segment

Revenue by segment	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Solar Panel Manufacturing business						21,013	81,775	206,811	199,874	64,348
YoY	-	-	-	-	-	-	289.2%	152.9%	-3.4%	-
% of revenue	-	-	-	-	-	78.1%	88.8%	96.1%	95.6%	88.9%
Green Energy business	3,940	5,636	6,513	5,178	6,248	5,311	9,921	8,002	8,341	7,442
YoY	14.0%	43.0%	15.6%	-20.5%	20.7%	-15.0%	86.8%	-19.3%	4.2%	-
% of revenue	86.8%	86.8%	89.2%	86.5%	93.6%	19.7%	10.8%	3.7%	4.0%	10.3%
IT business	90	101	81	172	58	61	292	677	590	-
YoY	-41.3%	12.3%	-19.5%	111.7%	-66.3%	5.2%	378.7%	131.8%	-12.9%	-
% of revenue	2.0%	1.6%	1.1%	2.9%	0.9%	0.2%	0.3%	0.3%	0.3%	-
Photocatalyst business					112	177	80	40	41	-
YoY	-	-	-	-	-	58.0%	-54.8%	-50.0%	2.5%	-
% of revenue	-	-	-	-	1.7%	0.7%	0.1%	0.0%	0.0%	-
Construction Machinery Sales business	510	758	706	596	-	-	-	-	-	-
YoY	-35.3%	48.7%	-6.9%	-15.6%	-	-	-	-	-	-
% of revenue	11.2%	11.7%	9.7%	10.0%	-	-	-	-	-	-
Reportable segments total	4,540	6,495	7,301	5,946	6,565	26,563	92,070	215,531	208,847	71,791
YoY	3.3%	43.1%	12.4%	-18.6%	10.4%	304.6%	246.6%	134.1%	-3.1%	-
% of revenue	100.0%	100.0%	100.0%	99.4%	98.3%	98.7%	99.9%	100.1%	99.9%	99.1%
Other businesses and adjustments	0	0	0	39	257	339	52	-246	125	626
YoY	-	-	-	-	561.2%	31.9%	-84.7%	-	-	-
% of revenue	-	-	-	0.6%	3.8%	1.3%	0.1%	-	0.1%	0.9%
Total	4,540	6,495	7,301	5,985	6,678	26,901	92,122	215,284	208,972	72,417
YoY	3.3%	43.1%	12.4%	-18.0%	11.6%	302.8%	242.4%	133.7%	-2.9%	-

Source: Shared Research based on company data

Note: The Green Energy business was referred to as the Solar Power Generation business through FY06/17; same hereinafter

Any differences between figures in the table and those in company data are due to rounding

Revenue by region

Revenue by region

Revenue composition by region (JPYmn)	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
	Cons.	Cons.	Cons.	Cons.	Cons.
North America	2,643	68,185	186,684	143,783	35,235
YoY	-	-	173.8%	-23.0%	-
% of total	9.8%	74.0%	86.7%	68.8%	48.7%
The US	-	-	186,549	136,044	-
YoY	-	-	-	-27.1%	-
% of total	-	-	86.7%	65.1%	-
Japan	5,533	10,792	8,605	9,089	8,068
YoY	-	95.0%	-20.3%	5.6%	-
% of total	20.6%	11.7%	4.0%	4.3%	11.1%
Europe	1,943	3,719	10,527	8,621	726
YoY	-	91.4%	183.1%	-18.1%	-
% of total	7.2%	4.0%	4.9%	4.1%	1.0%
Asia	16,781	1,526	1,051	47,079	28,139
YoY	-	-90.9%	-31.1%	4379.4%	-
% of total	62.4%	1.7%	0.5%	22.5%	38.9%
Other	0	7,898	8,416	397	246
YoY	-	-	6.6%	-95.3%	-
% of total	-	8.6%	3.9%	0.2%	0.3%
Of which South America	0	7,772	8,416	17	-
YoY	-	-	8.3%	-99.8%	-
% of total	-	8.4%	3.9%	0.0%	-
Total	26,901	92,122	215,284	208,972	72,417
YoY	-	242.4%	133.7%	-2.9%	-

Source: Shared Research based on company data

In FY03/25, the revenue breakdown by region was as follows: North America accounted for 48.7%, Asia (including India) for 38.9%, Japan for 11.1%, Europe for 1.0%, and other regions for 0.3%. Revenue from the US expanded between FY06/21 and FY06/23, but its share has declined since FY06/24 due to shifts in US energy policies under the Biden administration and heightened efforts to reassess supply chains amid rising geopolitical risks. Meanwhile, the company has been strengthening sales from Vietnam to India, driving an increase in the revenue share of Asia. While continuing to prioritize the US market, the company is working to rebuild its global supply chain by expanding sales of solar panel-related products to other markets such as Europe and India.

US tariff measures for solar power-related imports from Southeast Asia

In June 2022, President Biden declared a state of emergency regarding the shortage of solar cells and panels, and issued a presidential proclamation instructing the Secretary of Commerce to take appropriate measures. These included tariff exemptions for imports of solar power-related products from Cambodia, Malaysia, Thailand, and Vietnam for a maximum period of 24 months (“Declaration of Emergency and Authorization for Temporary Extensions of Time and Duty-Free Importation of Solar Cells and Modules from Southeast Asia”).

The proclamation spoke of the solar panel bottleneck emerging in the US. The majority of solar modules installed in the US are imported, and in 2020, three-quarters of these imports came from Southeast Asia. That said, due to increasing demand for solar power generation driven by the climate change, carbon neutrality efforts, and rising energy prices, the current level of panel imports no longer satisfies the growing demand in the US.

In August 2023, the US Department of Commerce issued its final decision that several solar product manufacturers with Chinese origins were circumventing the Anti-Dumping Duties (AD) and Countervailing Duties (CVD) placed on Chinese solar products (cells and modules) by routing their products through four Southeast Asian countries (Cambodia, Malaysia, Thailand, Vietnam) before exporting them to the US (if conditions are met, the products are not subject to tax until June 2024). VSUN is neither recognized as a circumventing nor as a non-circumventing company, and under US related laws and regulations, if evidence is found that products are completed or assembled in a third country with the intention to evade AD or CVD, the US Department of Commerce may conduct an investigation.

In May 2024, the Biden administration announced that the US’s tariff exemption measures for four Southeast Asian countries, introduced in June 2022, will end as scheduled on June 6, 2024. From that date onward, imports from these four countries, determined to be circumventing AD and CVD imposed on Chinese imports, will be subject to AD and CVD investigations. The US Department of Commerce will continue to monitor imports to ensure that the US market does not become saturated due to Chinese companies that have increased their production capacities in Southeast Asia to avoid these duties.

In November 2024, the US Department of Commerce issued a preliminary decision on November 27 to impose AD on solar cells manufactured in four Southeast Asian countries—Cambodia, Malaysia, Thailand, and Vietnam. Since May 2024, the US government had been conducting an investigation to determine whether to impose AD and CVD on solar cells from these countries. With the preliminary decision, AD collection will begin on the same day as its publication in the Federal Register. The US Department of State has scheduled the final decision for mid-April 2025. Meanwhile, for CVD, a preliminary decision was already announced on October 1, and collection began on October 4.

In April 2025, the US Department of Commerce issued its final decision to impose AD and CVD on solar cells produced in four Southeast Asian countries. For Vietnam, the general AD and CVD rates were set at 271.28% and 124.57%, respectively. However, AD rates vary by company, and a separate rate of 77.12% was applied to products from VSUN. Both the AD and CVD took effect on June 24, 2025.

In April 2025, the US government announced that, effective April 5, a baseline tariff of 10% would be imposed on virtually all imported goods from all countries and regions (i.e., existing tariffs plus 10%). Furthermore, starting April 9, it said that it planned to implement a “reciprocal tariff” on 57 countries listed in a presidential executive order—including Japan and Vietnam, but excluding Ethiopia—by raising tariffs beyond the baseline to designated rates. After a 90-day suspension period through July 9, negotiations were held between the US and the affected countries. As a result, tariff rates were set at 15% for Japan and 20% for Vietnam (with AD and CVD applied separately), effective August 7. For China, a provisional agreement was reached at 34%, with a temporary rate of 30% (baseline 10% plus an additional 20%) applied until August 12, while negotiations remain ongoing.

Cost of revenue

The company had kept its cost of revenue ratio below 80% through FY06/20, before VSUN was made a consolidated subsidiary. From FY06/21, however, the ratio consistently exceeded 80%. In FY06/24, the ratio dipped below 80% again, thanks to the company’s progress in in-house production of solar cells, ingots, and wafers. However, in FY03/25, the ratio once again climbed above 80%, primarily due to a sharp decline in solar panel prices and lower factory utilization rates. Shared Research understands that cost of revenue includes the cost of solar panels and the cost of sales for solar power-related products within the Green Energy business. To ensure stable procurement, the company has been shifting from sourcing materials from Europe, the US, and Asia to in-house production of cells, ingots, and wafers.

Income statement	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Revenue	4,540	6,495	7,301	5,985	6,678	26,901	92,122	215,284	208,972	72,417
YoY	3.3%	43.1%	12.4%	-18.0%	11.6%	302.8%	242.4%	133.7%	-2.9%	-
Cost of revenue	3,432	5,006	5,123	4,112	4,916	22,112	82,508	185,663	164,398	60,240
YoY	3.5%	45.9%	2.3%	-19.7%	19.6%	349.8%	273.1%	125.0%	-11.5%	-
Cost ratio	75.6%	77.1%	70.2%	68.7%	73.6%	82.2%	89.6%	86.2%	78.7%	83.2%
Gross profit	1,108	1,489	2,178	1,873	1,762	4,788	9,613	29,621	44,573	12,177
YoY	2.5%	34.4%	46.3%	-14.0%	-5.9%	171.7%	100.8%	208.1%	50.5%	-
Gross profit margin	24.4%	22.9%	29.8%	31.3%	26.4%	17.8%	10.4%	13.8%	21.3%	16.8%

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

SG&A expenses

The SG&A expense ratio hovered around 20% from FY06/17 through FY06/20, but declined to 12.7% in FY06/21, and has remained between 8–10% since FY06/22. In FY03/25 (a nine-month fiscal period), the largest SG&A component was salaries, allowances, and bonuses, which accounted for 3.1% of revenue, up from the previous period. By contrast, container freight and commission expenses made up 1.3% of revenue, showing a decline in their relative weight. Other SG&A expenses accounted for a sizable 5.4%, mainly due to taxes and dues, including export duties imposed on solar panels shipped by VSUN.

SG&A expenses	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
SG&A expenses	710	1,374	1,251	1,265	1,400	3,427	8,007	16,816	21,224	8,575
YoY	7.6%	93.3%	-8.9%	1.1%	10.7%	144.7%	133.6%	110.0%	26.2%	-
SG&A ratio	15.6%	21.1%	17.1%	21.1%	21.0%	12.7%	8.7%	7.8%	10.2%	11.8%
Commission expenses	129	327	221	256	229	492	1,640	7,626	12,527	959
YoY	25.5%	153.7%	-32.4%	15.7%	-10.5%	114.7%	233.3%	365.0%	64.3%	-
% of revenue	2.8%	5.0%	3.0%	4.3%	3.4%	1.8%	1.8%	3.5%	6.0%	1.3%
Salaries, allowances and bonuses	221	303	367	361	400	678	865	2,312	3,700	2,219
YoY	5.4%	37.3%	21.2%	-1.8%	10.8%	69.6%	27.6%	167.3%	60.0%	-
% of revenue	4.9%	4.7%	5.0%	6.0%	6.0%	2.5%	0.9%	1.1%	1.8%	3.1%
Depreciation	4	21	26	32	25	28	350	509	137	232
YoY	-26.9%	474.6%	20.4%	24.8%	-20.8%	11.0%	-	45.4%	-73.1%	-
% of revenue	0.1%	0.3%	0.3%	0.5%	0.4%	0.1%	0.4%	0.2%	0.1%	0.3%
Amortization of goodwill	17	34	101	107	77	12	147	375	401	1,134
YoY	0.0%	94.4%	200.0%	5.7%	-27.9%	-84.5%	-	155.1%	6.9%	-
% of revenue	0.4%	0.5%	1.4%	1.8%	1.2%	0.0%	0.2%	0.2%	0.2%	1.6%
Directors' compensations	91	96	113	118	133	109	115	134	120	92
YoY	8.0%	6.1%	17.9%	4.2%	12.9%	-18.3%	5.5%	16.5%	-10.4%	-
% of revenue	2.0%	1.5%	1.6%	2.0%	2.0%	0.4%	0.1%	0.1%	0.1%	0.1%
R&D expenses	-	12	0	-	-	-	74	70	289	48
YoY	-	-	-98.0%	-	-	-	-	-5.4%	312.9%	-
% of revenue	-	0.2%	0.0%	-	-	-	0.1%	0.0%	0.1%	0.1%
Provision for doubtful accounts	12	182	13	-54	12	18	8	35	164	4
YoY	-	1422.5%	-93.1%	-	-	44.3%	-55.6%	337.5%	368.6%	-
% of revenue	0.3%	2.8%	0.2%	-	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%
Other	237	398	410	446	523	2,090	4,808	5,755	3,886	3,887
YoY	11.9%	67.9%	3.0%	8.8%	17.4%	299.4%	130.0%	19.7%	-32.5%	-
% of revenue	5.2%	6.1%	5.6%	7.4%	7.8%	7.8%	5.2%	2.7%	1.9%	5.4%

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

Operating profit

Operating profit in FY06/24 reached a record high, driven primarily by the operation of the cell factory, a key component in the Solar Panel Manufacturing business. This enabled in-house cell production, reducing production costs, stabilizing component procurement, and enhancing the company's ability to respond to import regulations in various countries. In contrast, operating profit in FY03/25 declined sharply as the solar panel market was disrupted by US tariff measures. The company responded by expanding sales channels from the US to Europe, India, and Taiwan, and implemented cost-cutting measures. Meanwhile, the Green Energy business generated stable profit, enabling the company to remain in the black on a consolidated basis.

Segment profit	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Solar Panel Manufacturing business						731	1,238	12,701	23,876	3,489
YoY	-	-	-	-	-	-	69.4%	925.9%	88.0%	-
% of total	-	-	-	-	-	40.9%	52.9%	92.1%	97.6%	82.3%
Green Energy business	625	529	1,297	932	817	1,005	1,112	1,076	532	752
YoY	16.0%	-15.5%	145.4%	-28.2%	-12.3%	23.0%	10.6%	-3.2%	-50.6%	-
% of total	99.7%	100.9%	105.5%	93.4%	112.4%	56.3%	47.5%	7.8%	2.2%	17.7%
IT business	4	26	8	63	-41	16	7	47	40	
YoY	-85.7%	538.0%	-68.6%	658.5%	-	-	-56.3%	571.4%	-14.9%	-
% of total	0.7%	5.0%	0.7%	6.3%	-5.6%	0.9%	0.3%	0.3%	0.2%	-
Photocatalyst business						32	-17	-40	2	
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	1.8%	-0.7%	-0.3%	0.0%	-
Construction Machinery Sales business	-2	-31	-76	3	-50					
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-0.3%	-5.9%	-6.1%	0.3%	-6.8%	-	-	-	-	-
Reportable segments total	627	524	1,230	997	727	1,786	2,341	13,785	24,452	4,241
YoY	3.7%	-16.5%	134.7%	-18.9%	-27.1%	145.7%	31.1%	488.9%	77.4%	-
% of total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Other	0	0	0	-20	-6	-54	-45	-120	-300	-10
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	-	-	-	-	-
Adjustments	-230	-409	-303	-369	-359	-370	-689	-860	-802	-629
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	-	-	-	-	-
Total	397	115	927	608	362	1,361	1,605	12,804	23,349	3,602
YoY	-5.5%	-71.0%	704.7%	-34.4%	-40.5%	276.4%	17.9%	697.8%	82.4%	-

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

OPM

Much like consolidated revenue and operating profit, OPM reached a record 12.7% in FY06/18, but has since trended lower. In FY06/21, OPM declined to 5.1% due to the impact of VSUN becoming a consolidated subsidiary, then to 1.7% in FY06/22 due to raw material price hikes and other factors. In FY06/23, it rose to 5.9% due to the easing of raw material price hikes and price pass-throughs. In FY06/24, strong sales of solar panels by VSUN, along with the progress in in-house production of cells and wafers, significantly boosted profit margins. However, in FY03/25, US tariff measures triggered supply-demand disruptions in the solar panel market, leading to falling sales prices and lower factory utilization rates. As a result, OPM declined to 5.0%.

Segment profit margin	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(%)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Solar Panel Manufacturing business	-	-	-	-	-	3.5%	1.5%	6.1%	11.9%	5.4%
Green Energy business	15.9%	9.4%	19.9%	18.0%	13.1%	18.9%	11.2%	13.4%	6.4%	10.1%
IT business	4.6%	26.0%	10.2%	36.4%	-	26.2%	2.4%	6.9%	6.8%	-
Photocatalyst business	-	-	-	-	-	18.1%	-	-	4.9%	-
Construction Machinery Sales business	-	-	-	0.4%	-	-	-	-	-	-
Reportable segments total	13.8%	8.1%	16.8%	16.8%	11.1%	6.7%	2.5%	6.4%	11.7%	5.9%
Total	8.8%	1.8%	12.7%	10.2%	5.4%	5.1%	1.7%	5.9%	11.2%	5.0%

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

Capital expenditures

Purchases of solar power plants and equipment for solar panel manufacturing have been the main reasons behind changes in capital expenditures. In FY06/21, capital expenditures rose to 23.4% of consolidated revenue due to such purchases, but since FY06/23 they have declined significantly and have remained at around 5%.

Capital expenditures	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Total capital expenditures	60	434	408	2,096	1,408	6,290	4,406	13,258	9,629	4,142
% of revenue	1.3%	6.7%	5.6%	35.0%	21.1%	23.4%	4.8%	6.2%	4.6%	5.7%

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

Earning potential

In FY06/24, ROE and ROA rose YoY to 52.4% and 16.9%, respectively. ROE slightly declined YoY, while ROA grew. The average period in inventory fell from 4.3 months in FY06/21 to 2.7 months in FY06/24. The average accounts receivable turnover period was one month or less for all fiscal years, while the average accounts payable turnover period declined from 1.6 months in FY06/21 to 1.0 months in FY06/24. As a result, the cash conversion cycle also declined from 3.0 months to

1.8 months. The company is working to optimize its overall supply chain, spanning from order receipt to production and shipping, to maintain and enhance profitability.

Profit margins	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Revenue	4,540	6,495	7,301	5,985	6,678	26,901	92,122	215,284	208,972	72,417
Cost of revenue	3,432	5,006	5,123	4,112	4,916	22,112	82,508	185,663	164,398	60,240
Gross profit	1,108	1,489	2,178	1,873	1,762	4,788	9,613	29,621	44,573	12,177
Operating profit	397	115	927	608	362	1,361	1,605	12,804	23,349	3,602
YoY	-5.5%	-71.0%	704.7%	-34.4%	-40.5%	276.4%	17.9%	697.8%	82.4%	-
Operating profit margin	8.8%	1.8%	12.7%	10.2%	5.4%	5.1%	1.7%	5.9%	11.2%	5.0%
Net income attributable to owners of the parent	231	-176	757	316	211	537	806	4,965	9,530	951
YoY	15.8%	-	-	-58.2%	-33.1%	154.2%	50.1%	516.0%	91.9%	-
Net margin	5.1%	-	10.4%	5.3%	3.2%	2.0%	0.9%	2.3%	4.6%	1.3%
Inventories	1,051	3,061	3,987	3,804	5,000	10,947	30,552	53,168	20,291	21,865
YoY	75.3%	191.3%	30.2%	-4.6%	31.4%	118.9%	179.1%	74.0%	-61.8%	-
% of total assets	37.7%	47.8%	55.5%	34.6%	33.9%	27.8%	35.9%	37.0%	13.5%	15.0%
Accounts receivable	473	335	335	393	303	1,312	6,156	2,011	3,558	5,434
YoY	-9.9%	-29.2%	0.2%	17.2%	-22.8%	332.5%	369.2%	-67.3%	76.9%	-
% of total assets	16.9%	5.2%	4.7%	3.6%	2.1%	3.3%	7.2%	1.4%	2.4%	3.7%
Accounts payable	529	331	411	533	991	5,058	14,595	16,412	12,252	10,131
YoY	21.3%	-37.3%	23.9%	29.8%	86.0%	410.4%	188.6%	12.4%	-25.3%	-
% of total assets	18.9%	5.2%	5.7%	4.8%	6.7%	12.8%	17.1%	11.4%	8.2%	6.9%
Shareholders' equity	1,219	1,077	1,767	1,969	2,093	4,006	5,873	12,596	23,800	24,182
YoY	17.4%	-11.6%	64.0%	11.4%	6.3%	91.4%	46.6%	114.5%	88.9%	-
% of total assets	43.7%	16.8%	24.6%	17.9%	14.2%	10.2%	6.9%	8.8%	15.8%	16.6%
Total assets	2,790	6,400	7,189	10,985	14,765	39,388	85,121	143,691	150,173	145,802
YoY	10.2%	129.4%	12.3%	52.8%	34.4%	166.8%	116.1%	68.8%	4.5%	-
% of total assets	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cash flows from operating activities	206	-984	405	-147	-861	-608	-6,449	18,526	44,757	-10,361
Cash flows from investing activities	-75	-864	-559	-1,620	-472	-1,391	-13,221	-20,670	-21,191	-2,620
FCF	131	-1,848	-155	-1,766	-1,333	-1,999	-19,670	-2,144	23,566	-12,981
Cash flows from financing activities	-85	1,991	-62	1,913	1,465	5,290	17,752	17,235	-5,446	4,128
ROA (RP-based)	16.0%	1.1%	12.9%	6.2%	2.4%	4.7%	2.3%	12.3%	16.9%	-
ROE	20.5%	-15.3%	53.2%	16.9%	10.4%	17.6%	16.3%	53.8%	52.4%	-
Tangible fixed asset turnover (excl. construction in progress)	22.0	9.0	5.5	2.7	2.1	3.1	5.6	9.8	5.9	-
Total asset turnover	1.7	1.4	1.1	0.7	0.5	1.0	1.5	1.9	1.4	-
Inventory turnover	4.2	2.4	1.5	1.1	1.1	2.8	4.0	4.4	4.5	-
Average period in inventory (months) ①	2.9	4.9	8.3	11.4	10.7	4.3	3.0	2.7	2.7	-
Accounts receivable turnover period (months) ②	1.3	0.7	0.6	0.7	0.6	0.4	0.5	0.2	0.2	-
Accounts payable turnover period (months) ③	1.7	1.0	0.9	1.4	1.9	1.6	1.4	1.0	1.0	-
Cash conversion cycle (months) ①+②-③	2.5	4.6	7.9	10.7	9.5	3.0	2.1	1.9	1.8	-

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

Financial standing

In FY03/25, shareholders' equity (excluding subscription rights and noncontrolling interests) increased to JPY24.2bn due to capital increases and accumulated profits. The equity ratio was 16.6%, up from 15.8% in FY06/24. To ensure financial soundness, the company plans to continue strengthening its equity by accumulating retained earnings through the growth of its Solar Panel Manufacturing and Green Energy businesses.

Financial ratios	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Shareholders' equity	1,219	1,077	1,767	1,969	2,093	4,006	5,873	12,596	23,800	24,182
Equity ratio	43.7%	16.8%	24.6%	17.9%	14.2%	10.2%	6.9%	8.8%	15.8%	16.6%

Source: Shared Research based on company data

Any differences between figures in the table and those in company data are due to rounding

Market and value chain

Here, we will primarily focus on the solar panel market, where the mainstay businesses of the Abalance group belong. While there are no official statistics indicating the global market size for solar panels alone, the International Energy Agency (IEA) gives an estimate of the overall solar power generation market in its "Trends in Photovoltaic Applications" report. In Japan, Yano Research Institute Ltd. publishes forecasts on the amount of solar power generation installed in Japan.

Solar power generation market

According to IEA, total revenue generated in the global solar power sector, including revenue from silicon, wafers, cells, and panels, reached USD400bn in 2023 (approximately JPY56tn based on average exchange rate of JPY140/USD), up 73.9% YoY. This figure was calculated, taking into account the solar panel (PV) annual installations, cumulative installations, and average

cost of installation. Neither the base figures of the calculations, such as volume and per-unit value, nor data on future outlook are disclosed in the IEA report.

Total revenue generated in the global solar power sector grew at a CAGR of 24.8% over the past five years, with particularly strong growth recorded in 2023. Since IEA does not disclose the details of its calculations, we attempted to estimate the value of PV per GW by simply dividing the total revenue by the PV annual installation data (in GW) in the IEA report. The Shared Research estimate (referred to as “reference value” in the table below) showed that from 2019, total revenue in the solar power sector grew due to an increase in the amount of PV installations, which more than compensated for the decline in unit value per GW. Notably, in 2022 and 2023, unit value declines exceeded 10%, with volume growth acting as the primary driver of revenue expansion.

Total revenue generated by the global solar power generation market

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Five-year CAGR	10-year CAGR
Total revenue (USDmn)	82,000	80,000	110,000	110,000	132,000	135,000	160,000	190,000	230,000	400,000		
YoY	-4.7%	-2.4%	37.5%	0.0%	20.0%	2.3%	18.5%	18.8%	21.1%	73.9%	24.8%	16.6%
(Reference value)												
PV annual installations (GW)	40	51	77	103	105	113	146	174	236	456		
YoY	6.1%	25.9%	52.1%	34.0%	1.7%	7.9%	28.9%	19.2%	36.0%	93.2%	34.2%	28.3%
Unit value (per GW, USDmn)	2,045	1,584	1,432	1,069	1,262	1,196	1,100	1,095	975	877		
YoY	-10.1%	-22.5%	-9.6%	-25.4%	18.0%	-5.2%	-8.0%	-0.4%	-11.0%	-10.0%	-7.0%	-9.1%

Source: Shared Research based on data from the respective years' "Trends in Photovoltaic Applications" report published by the International Energy Agency

Global electricity demand and supply; output capacity

Outlook on global electricity demand and supply

The World Energy Outlook 2024 report (the WEO) predicts that global energy systems will be transformed over the next decade as power supply systems are reshaped by the rise of solar, wind, electric vehicles, heat pumps, and other clean energy technologies. Global electricity demand will increase in all scenarios due to population growth, rising incomes, and increasing end-use electrification. By 2050, electricity demand is expected to grow 85.0% from 2023 levels in the stated policies scenario (STEPS), 102% in the announced pledges scenario (APS), and 107% in the net zero emissions by 2050 scenario. Additional demand will be met primarily by renewable energy, nuclear power, fossil fuels with CCUS, hydrogen, and ammonia, all of which will account for a higher share of electricity supply in each scenario.

WEO presents outlook in three scenarios

The WEO report presents three scenarios, providing a framework to explore the effects of various policy choices, investment trends, and technological developments on the projections. Assumptions for each of the scenarios are as follows.

- * **Stated policies scenario (STEPS)** shows the trajectory implied by current policy settings
- * **Announced pledges scenario (APS)** assumes all aspirational targets announced by countries—including their long-term net zero and energy access goals—are met in full and as scheduled
- * **Net zero emissions by 2050 scenario (NZE)** proposes a way to limit global warming to 1.5°C, achieving universal access to modern energy by 2030

Outlook on installed electricity capacity

The WEO also provides an outlook on installed electricity capacity by source. In all scenarios, installed capacity of solar and wind power is expected to expand the most. Solar power plant capacity is expected to grow under the STEPS scenario, from 1,610GW in 2023 to 5,838GW in 2030, 12,333GW in 2040, and 16,445GW in 2050. The APS and NZE scenarios require even larger growth in installed capacity.

Outlook on global installed capacity by power source

Outlook on installed capacity by power source (GW)	Results		STEPS			APS			NZE		
	2022	2023	2030	2040	2050	2030	2040	2050	2030	2040	2050
Total	8,768	9,436	15,922	25,400	31,436	16,969	29,423	37,593	17,093	32,510	41,298
Renewable energy	3,684	4,246	9,768	17,974	23,218	10,918	21,965	29,355	11,495	25,446	33,179
Solar	1,185	1,610	5,838	12,333	16,445	6,544	14,801	20,059	6,699	16,455	21,618
Wind	899	1,015	2,079	3,419	4,189	2,410	4,487	6,032	2,731	5,945	7,901
Hydroelectric	1,398	1,411	1,576	1,808	2,031	1,626	1,945	2,200	16,797	2,161	2,419
Biomass and other sources											
Nuclear	417	416	478	586	647	508	748	874	554	896	1,017
Hydrogen and Ammonia	-	-	7	24	20	29	202	273	118	458	443
Fossil fuels (using CCUS)	0	0	2	25	37	6	113	183	47	202	235
Fossil fuels	4,602	4,665	4,798	4,438	4,064	4,479	3,444	2,512	3,605	1,696	904
Storage battery	45	89	853	2,339	3,438	1,015	2,939	4,386	1,260	3,802	5,512

Source: "World Energy Outlook 2024" report released by the International Energy Agency

A Shared Research estimate on the required additions in installed capacity per year, based on the projections for solar power and wind power output capacities, showed that in the STEPS, the required addition per year came to 604GW through 2030, 631GW through 2040, and 549GW through 2050. Since output capacity increased by 425GW in 2023, the required addition of 604GW per year through 2030 based on STEPS (the most conservative scenario) surpasses this level, underscoring the significant growth needed to meet future energy demands.

Outlook on installed capacity for solar and wind power

Outlook on installed capacity for solar and wind power (GW)	Results		STEPS			APS			NZE		
	2022	2023	2030	2040	2050	2030	2040	2050	2030	2040	2050
Solar	1,185	1,610	5,838	12,333	16,445	6,544	14,801	20,059	6,699	16,455	21,618
Projected annual growth of installed capacity	95	425	604	631	549	705	776	683	727	873	741
Wind	899	1,015	2,079	3,419	4,189	2,410	4,487	6,032	2,731	5,945	7,901
Projected annual growth of installed capacity	60	116	152	141	118	199	204	186	245	290	255

Source: "World Energy Outlook 2024" report released by the International Energy Agency

The "Renewables 2024" report by the IEA provides historical data on solar power capacity by country and region. In 2023, the global installed solar power capacity was 1,612GW, with China having the largest share at 688GW, followed by the US at 170GW, Japan at 108GW, and India at 95GW. According to the "Renewables 2024" report, the global CAGR for solar power capacity from 2019 to 2023 was 25.5%. The forecast for capacity growth from 2024 to 2030 predicts a CAGR of 20.1%, which is lower than the 2019–2023 period but still indicates strong growth. Significant growth is expected in regions with large solar power capacities, with CAGRs of 24.8% in China, 14.1% in Europe, and 18.5% in the US. Additionally, strong growth is anticipated in India, Brazil, and the Middle East and North Africa. Conversely, Japan's growth is projected at a more modest CAGR of 6.1%.

Shared Research believes that regulations and industrial policies implemented by governments worldwide aiming to achieve carbon-neutral societies by 2050 are sustaining this high growth rate. According to the IEA, achieving net zero emissions by 2050 will require a total of 11,000GW of renewable energy capacity by 2030, including solar power. However, the IEA's 2030 forecast (main case) predicts a combined capacity of around 9,800GW, including 5,821GW from solar power and other renewables, indicating that the growth pace, even if sustained, will not reach 11,000GW by 2030.

Outlook on installed capacity by country and region

(GW)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	19 - 23 Actual CAGR	24 - 30 Forecast CAGR	19 - 23 Actual Increase	24 - 30 Forecast Increase
	Results	Results	Results	Results	Results	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast				
Global	636	790	953	1,185	1,612	2,117	2,646	3,208	3,810	4,451	5,120	5,821	25.5%	20.1%	1,094	4,209
China	205	264	328	427	688	1,009	1,341	1,684	2,047	2,429	2,829	3,247	31.5%	24.8%	513	2,559
(Europe)	152	174	256	247	312	371	433	498	567	639	712	787	19.4%	14.1%	184	475
US	76	95	74	138	170	209	253	301	356	416	483	557	22.1%	18.5%	107	387
Japan	70	82	90	99	108	117	125	131	138	146	154	164	12.0%	6.1%	47	56
India	46	51	64	83	95	123	154	192	233	277	323	371	22.4%	21.5%	60	276
Germany	49	54	60	68	83	99	117	137	157	176	194	212	12.8%	14.4%	37	129
Brazil	5	9	15	27	42	56	71	86	99	111	122	131	74.0%	17.9%	39	90
Australia	17	22	26	31	35	40	43	47	52	59	62	67	25.3%	9.7%	24	32
Spain	10	12	16	25	34	40	44	48	54	59	64	69	48.3%	10.3%	30	34
Italy	21	22	23	25	30	37	42	47	53	60	68	76	8.6%	14.0%	10	45
South Korea	13	17	21	24	27	30	34	37	40	43	46	48	25.1%	8.5%	18	21
Netherlands	7	11	15	20	24	28	32	37	41	44	48	51	39.0%	11.3%	19	27
Middle East and North Africa	9	11	12	17	24	29	36	43	54	73	87	102	39.8%	23.3%	19	78
Vietnam	7	19	20	20	21	22	23	24	26	28	30	34	191.4%	6.9%	21	13
France	11	12	15	17	21	25	29	34	39	44	49	54	16.7%	14.5%	11	33
UK	15	15	16	16	18	20	24	27	31	37	43	50	3.5%	16.2%	3	33
Other	83	114	179	169	214	256	302	356	417	448	549	623	30.0%	16.5%	156	409

Source: "Renewables 2024" report released by the International Energy Agency

Note: Estimates are based on the main scenario

Solar panel production capacity, production, and prices

The IEA forecasts continued growth in solar power installed capacity alongside robust growth in solar panel production capacity. In 2023, production capacity surged by 53.9% YoY to 1,103GW, achieving a five-year CAGR of 43.1%. However, actual production in 2023 reached only 612GW (+61.7% YoY), resulting in a capacity utilization rate (production volume/production capacity) of 55.5%. A comparison of the CAGR of the past five years showed that production capacity has increased at a faster pace than production growth, causing the capacity utilization rate to trend around 50%.

Solar panel production and production capacity

(GW)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Five-year CAGR	10-year CAGR
Production capacity	67	94	105	155	184	219	327	483	717	1,103		
YoY	10.4%	39.3%	11.9%	47.7%	18.7%	19.2%	49.0%	47.8%	48.4%	53.9%	43.1%	33.6%
Production volume	46	63	78	105	116	140	179	242	379	612		
YoY	15.3%	36.3%	24.6%	34.7%	10.3%	21.0%	27.9%	35.0%	56.2%	61.7%	39.5%	31.4%
Capacity utilization rate (%)	68.3%	66.9%	74.4%	67.9%	63.1%	64.0%	54.9%	50.2%	52.8%	55.5%		

Source: Shared Research based on data from the "Trends in Photovoltaic Applications 2024" report by the International Energy Agency

The global prices of solar panels (modules) have been declining as the market expanded. In 2015, the module price was approximately USD0.55 per watt, but by December 2024, it had dropped to USD0.10 per watt. Although the downward trend paused in 2025, prices have remained at historically low levels. Prices temporarily rose in 2021 and 2022 amid surging demand spurred by aggressive green policies in Europe and the US during the COVID-19 pandemic. However, the long-term trend over the past decade has been a steady decline. In 2023 and 2024, prices fell sharply as a result of capital investments in China. Since the beginning of 2025, prices appear to have stabilized. The prices of materials used in modules, such as cells, wafers, and polysilicon, have shown similar price fluctuations, with greater volatility observed further upstream in the supply chain.

Solar panel prices

(USD)		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Polycrystalline silicon	per kg	12.83	14.6	16.65	9.02	7.74	9.66	35.82	39.9	14.4	12.1	11.7
YoY		-34.1%	13.8%	14.0%	-45.8%	-14.2%	24.8%	270.8%	11.4%	-63.9%	-16.0%	-3.3%
Wafer(monocrystalline)	per wafer	0.89	0.79	0.72	0.38	0.39	0.42	0.68	1.06	0.34	0.17	0.19
YoY		-23.3%	-11.2%	-8.9%	-47.2%	2.6%	7.7%	61.9%	55.9%	-67.9%	-50.0%	11.8%
Solar cell(monocrystalline)	per W	0.33	0.22	0.21	0.13	0.12	0.12	0.15	0.18	0.06	0.04	0.04
YoY		3.1%	-33.3%	-4.5%	-38.1%	-7.7%	0.0%	25.0%	20.0%	-66.7%	-33.3%	0.0%
Module(monocrystalline)	per W	0.55	0.39	0.35	0.23	0.25	0.21	0.26	0.27	0.14	0.10	0.09
YoY		-9.8%	-29.1%	-10.3%	-34.3%	8.7%	-16.0%	23.8%	3.8%	-48.1%	-28.6%	-10.0%

Source: Shared Research based on PVeye Market Data

Note: Figures reflect data as of December each year, except for 2025, which reflects data as of August.

Costs of power generation facilities

The International Renewable Energy Agency provides data on installed costs of renewables-based power generation facilities across the world. According to the data, total installed costs and levelised cost of electricity (USD/kWh) declined the most for solar power facilities in the period from 2010 to 2023, indicating heightened cost advantage of solar power systems. Total installed costs of solar power projects fell 86%, and levelized cost of electricity for solar fell 90%. The facility utilization rate was a low 16% in 2023, although up from 14% in 2010.

	Total installed costs (USD/kW)			Facility utilization rate (%)			Levelized cost of electricity (USD/kWh)		
	2010	2023	Rate of change	2010	2023	Rate of change	2010	2023	Rate of change
Biomass	3,010	2,730	-9%	72	72	0%	0.084	0.072	-14%
Geothermal	3,011	4,589	52%	87	82	-6%	0.054	0.071	31%
Hydroelectric	1,459	2,806	92%	44	53	20%	0.043	0.057	33%
Solar	5,310	758	-86%	14	16	14%	0.460	0.044	-90%
CSP	10,453	6,589	-37%	30	55	83%	0.393	0.117	-70%
Onshore wind	2,272	1,160	-49%	27	36	33%	0.111	0.033	-70%
Offshore wind	5,409	2,800	-48%	38	41	8%	0.203	0.075	-63%

Source: Shared Research based on the "Renewable Power Generation Costs in 2023" report issued by the International Renewable Energy Agency

Note: The weighted average is applied to both total installed costs and levelized cost of electricity

Trends over the past five years and the past decade both indicate a decline in total installed costs and levelised cost of electricity, year on year.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Five-year CAGR	10-year CAGR
Total installed costs (USD/kW)	2,749	2,090	1,901	1,644	1,405	1,161	1,019	950	908	758	-11.6%	-13.0%
Facility utilization rate (%)	16.6%	16.5%	16.7%	17.6%	17.9%	17.5%	16.1%	17.2%	16.9%	16.2%		
Levelised cost of electricity (USD/kWh)	0.177	0.132	0.116	0.091	0.077	0.067	0.060	0.052	0.050	0.044	-10.6%	-13.9%

Source: Shared Research based on the "Renewable Power Generation Costs in 2023" report issued by the International Renewable Energy Agency

Solar panel supply chain

The manufacturing processes of a solar panel constitute the production of polycrystalline silicon, ingots, wafers, solar cells, and modules (panels). By country, China leads in production capacity for each of these materials. According to IEA, China produced 79.4% of polycrystalline silicon, 96.8% of silicon wafers, 85.2% of solar cells, and 74.6% of solar modules manufactured in 2021. IEA forecasts that by 2027, these shares will remain largely unchanged, though China's share in materials excluding polycrystalline silicon is expected to decline slightly. Meanwhile, the production shares of North America and India are projected to increase, with both regions' capacities doubling compared to 2021. The US has been imposing tariffs on Chinese imports while providing substantial subsidies for domestic investment, and IEA expects production capacity for cells and wafers in the US to rise as a result.

Solar panel production capacity by country and region

Solar panel production capacity	Demand		Module		Solar cell		Wafer		Polycrystalline silicon	
	2021	2027	2021	2027	2021	2027	2021	2027	2021	2027
	Results	Forecast	Results	Forecast	Results	Forecast	Results	Forecast	Results	Forecast
China	36.5%	40.3%	74.6%	73.9%	85.2%	79.5%	96.8%	88.6%	79.4%	89.2%
North America	16.8%	16.9%	2.7%	5.8%	0.6%	3.5%	0.0%	3.6%	5.6%	3.0%
Europe	17.8%	18.2%	2.8%	2.0%	0.6%	0.7%	0.5%	0.2%	8.0%	2.4%
Asia Pacific	13.4%	8.1%	15.3%	10.7%	12.2%	9.9%	2.5%	2.8%	6.0%	2.0%
India	7.1%	8.5%	3.1%	6.8%	1.2%	6.3%	0.0%	4.7%	0.0%	3.1%
Other	8.5%	8.0%	1.4%	0.8%	0.2%	0.1%	0.1%	0.1%	1.1%	0.3%

Source: International Energy Agency "Will new PV manufacturing policies in the United States, India and the European Union create global PV supply diversification? (Dec 2022)

Solar power generation market in Japan

The Yano Research Institute estimated the solar power generation capacity installed in Japan in FY2023 at 5,040MW (5.0GW). The decline in installed capacity, particularly in the commercial sector, was driven by the shrinking adoption of solar power systems under the Feed-in Tariff (FIT) scheme and a decline in electricity purchase prices. Meanwhile, installations under the Power Purchase Agreement (PPA) model, which does not rely on the FIT scheme, have been increasing. A PPA is a business model where a power producer installs and operates solar power systems for a specific consumer (who, in the case of on-site PPAs, provides the installation site) and sells electricity to the consumer at a fixed price over the long term. Since FY2021, PPA-based installations have been expanding. For power producers, PPAs offer the advantage of securing stable, long-term revenue, while for consumers, they eliminate the need for upfront spending and operational management while enabling them to secure a fixed-price, environmentally friendly power source.

According to the Yano Research Institute, the expansion of PPA-based installations is expected to offset the decline in FIT-based installations, bringing Japan's solar power generation capacity installed to 6,049MW in FY2030. The CAGR from FY2025 to FY2030 is projected to be 1.7%.

(MW)	FY03/21	FY03/22	FY03/23	FY03/24	FY03/25	FY03/26	FY03/27	FY03/28	FY03/29	FY03/30	FY03/31	CAGR5y
				Estimate	Estimate	Projection	Projection	Projection	Projection	Projection	Projection	26/3 - 31/3
Solar power generation installed	5,814	5,202	5,823	5,040	5,154	5,216	5,362	5,429	5,724	5,997	6,049	
YoY	2.5%	-10.5%	11.9%	-13.4%	2.3%	1.2%	2.8%	1.2%	5.4%	4.8%	0.9%	1.7%

Source: Yano Research Institute, Survey on the Solar Power Generation Market (2024) (August 30, 2024)

Competition

According to the IEA's "Trends in Photovoltaic Applications 2024," the module production capacity in 2023 was 1,103GW/year, up from 717GW/year in 2022. However, the actual production volume was 612GW/year (379GW/year in 2022), resulting in a utilization rate of around 55%. The top manufacturers by shipment volume were as follows: JinkoSolar Holding Co., Ltd. (NYSE JKS) with 83.5GW and a market share of 13.6%, LONGi Green Energy Technology Co., Ltd. (Shanghai 601012) with 72.8GW and a market share of 11.9%, JA Solar Technologies Co., Ltd. (Shenzhen 002459) with 60GW and a market share of 9.8%, Trina Solar Co., Ltd. (Shanghai 688599) with 58.9GW and a market share of 9.6%, and Canadian Solar Inc. (NASDAQ CSIQ) with 31.4GW and a market share of 5.1%. Collectively, these five companies

accounted for 50.1% of the market. Among the top five companies, four are Chinese. Although Canadian Solar Inc. (NASDAQ: CSIQ) is headquartered in Canada, it has major factories in China. Similarly, Hanwha Q CELLS Co., Ltd. (NASDAQ: HQCL), a Korean company based in Germany, also operates factories in China. In Vietnam, there are four to five solar panel manufacturing companies, among which VSUN is one of the leading firms in terms of scale.

VSUN has expanded its annual solar panel production capacity to 4GW. Although the company does not disclose its annual sales volume, assuming full production, its market share would be approximately 0.7% of the global market, positioning it as one of the major manufacturers. Its main competitors include the aforementioned companies, but here, we consider JinkoSolar (China), Canadian Solar (Canada), and First Solar, Inc. (US; NASDAQ: FSLR) as VSUN's peer companies, primarily because they are comparable in terms of accounting standards.

JinkoSolar Holding Co., Ltd. (NYSE: JKS)

JinkoSolar, established in 2006 and headquartered in the Shangrao economic development zone (Jiangxi, China), is a solar product manufacturer ranking third globally by annual production capacity for solar panels. JinkoSolar initially focused on the production of wafers, but eventually began manufacturing panels. Since 2016, it has ranked among the top global panel manufacturers by cumulative shipment volume. JinkoSolar manufactures wafers, solar cells, and panels. At end-2024, its annual production capacity stood at 120GW for wafers, 95GW for solar cells, and 130GW for panels. JinkoSolar has 12 production bases in China, Vietnam, Malaysia, and a global sales network. It listed on NYSE in 2010, and in FY12/24, revenue was USD12.6bn, EBITDA was USD585mn, and net income attributable to owners of the parent was USD8mn. The employee count was 33,800.

Canadian Solar Inc. (NASDAQ: CSIQ)

Canadian Solar, established in 2001 and headquartered in British Columbia (Canada), ranks among the world's largest solar power project operators/solar product manufacturers. In addition to having a vertically integrated manufacturing system for solar cells, it also engineers, develops, and manufactures other products for solar power generation and energy storage. Canadian Solar operates globally, with particular focus on North America, South America, and Europe. At end-2024, its annual production capacity stood at 36GW for ingots, 31GW for wafers, 48GW for solar cells, and 60GW for solar modules. Production bases are located in China and Southeast Asia. It listed on NASDAQ in 2006, and in FY12/24, revenue was USD6.0bn, EBITDA was USD456mn, and net income attributable to owners of the parent was USD36mn. The employee count stood at 17,100.

First Solar, Inc. (NASDAQ: FSLR)

First Solar, established in 1999 and headquartered in Arizona, is a solar technology company. It manufactures and sells high-performance and low-carbon products. These include solar panels made of cadmium telluride-coated glass, which were developed in First Solar's US-based R&D lab applying its thin-film technology. The company seeks to manage the entire product lifecycle from procurement of raw materials to the recycling of used panels. At end-2024, its annual solar panel production capacity stood at 21GW. By creating production bases in the US, Malaysia, Vietnam, and India, First Solar has built a production system that does not rely on China's silicon supply chain. It listed on NASDAQ in 2006, and in FY12/24, revenue was USD4.2bn, EBITDA was USD1.8bn, and net income attributable to owners of the parent was USD1.3bn. The employee count was 8,100.

Production system and sales by region

Among the four companies, JinkoSolar boasts the largest annual production capacity at 345GW. Canadian Solar's production capacity is about half this figure, at 176W, while First Solar's production capacity, at 21GW, is smaller compared to these two companies but exceeds VSUN's 10GW. All three other companies have increased their capacities from 2023 to 2024. JinkoSolar and Canadian Solar have built a vertically integrated production system from the upstream to downstream processes of manufacturing. The Abalance group handled only downstream panel production until FY06/23, but began cell production at a plant completed in late October 2023, and started ingot and wafer production in April 2024. While JinkoSolar and Canadian Solar have many factories in China, the VSUN group has located its panel, cell, and wafer plants outside of China, creating a supply chain that does not solely rely on China. First Solar produces solar panels using CdTe technology, which does not rely on Chinese components, and has established a supply chain outside of China, primarily in the US.

In terms of revenue by region, both Canadian Solar and JinkoSolar generate revenue globally, while 93% of First Solar's revenue comes from the US alone. In FY06/23, the company primarily focused on the US and European markets. However,

with the US tariff exemption ending in June 2024, the US revenue share declined while revenue from Asia, including India, rose.

Annual production capacity and revenue by region

	Abalance		Canadian Solar		First Solar		JinkoSolar	
Head office	Japan		Canada		US		China	
Established	2000		2001		1999		2001	
Fiscal year	FY06/24	FY03/25	FY12/23	FY12/24	FY12/23	FY12/24	FY12/23	FY12/24
Annual production capacity(GW)								
Ingot			20.4	36.0				
Wafer	4.0	4.0	21.0	31.0			85.0	120.0
Solar cell	4.0	2.0	50.0	48.4			90.0	95.0
Panel/Module	4.0	4.0	57.0	60.2	16.6	21.0	110.0	130.0
Total	12.0	10.0	148.4	175.6	16.6	21.0	285.0	345.0
Number of employees	1,684	1,713	18,423	17,113	6,700	8,100	57,397	33,830
Revenue composition by region								
Americas	68.8%	48.7%	34.4%	51.8%			8.8%	24.4%
US	65.1%		19.5%	46.3%	96.1%	92.8%		
Europe	4.1%	1.0%	24.6%	18.2%			18.3%	14.8%
France			0.3%		2.1%	0.8%		
China			28.3%	20.4%			38.3%	33.8%
Asia(excl. China)	26.9%	50.0%	12.8%	9.7%			16.4%	1.9%
Japan	4.3%	11.1%	7.8%	2.5%				
India			1.2%	0.8%	0.3%	4.8%		

Source: Shared Research based on company data

Notes: Abalance annual production capacity figures include those of VSUN and TOYO SOLAR (cell production [2GW] began at the Ethiopia plant in April 2025).

The number of employees and revenue by region are Abalance figures.

Profits and financial standing

In FY06/24, the company's ROE was 52.4% (down slightly from 53.8% in FY06/23), while ROA increased to 6.5% (from 4.3%). While fiscal year differences make direct comparisons difficult, the company's ROE outpaced those of its three main competitors in FY12/23. Its net margin was also the second highest after First Solar. Although FY03/25 was a nine-month irregular accounting period, the company's net margin still ranked second among the four companies when compared against FY12/24 figures. Canadian Solar and JinkoSolar remained in the black but recorded net margins below 1%, reflecting deteriorating solar panel market conditions and the impact of US tariff measures that hampered exports to the US. In contrast, First Solar, which operates primarily in the US, reported an improved net margin YoY.

(JPYmn)	Abalance		Canadian Solar		First Solar		JinkoSolar	
Fiscal year	FY06/24	FY03/25	FY12/23	FY12/24	FY12/23	FY12/24	FY12/23	FY12/24
Accounting standard	JPGAAP	JPGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
Revenue	208,972	72,417	1,087,454	942,044	473,996	661,145	2,387,479	1,986,608
YoY	-2.9%	-	8.9%	-13.4%	35.3%	39.5%	48.2%	-16.8%
Cost of revenue	164,398	60,240	904,634	784,971	288,220	369,125	2,004,294	1,770,953
YoY	-11.5%	-	9.0%	-13.2%	-15.4%	28.1%	45.9%	-11.6%
Cost of revenue ratio	78.7%	83.2%	83.2%	83.3%	60.8%	55.8%	84.0%	89.1%
Gross profit	44,573	12,177	182,820	157,073	185,776	292,019	383,185	215,655
YoY	50.5%	-	8.3%	-14.1%	1889.0%	57.2%	61.0%	-43.7%
GPM	21.3%	16.8%	16.8%	16.7%	39.2%	44.2%	16.0%	10.9%
SG&A expenses	21,224	8,575	118,072	161,801	64,316	73,019	260,618	289,383
YoY	26.2%	-	-2.6%	37.0%	37.2%	13.5%	13.5%	11.0%
SG&A ratio	10.2%	11.8%	10.9%	17.2%	13.6%	11.0%	10.9%	14.6%
Net income	9,530	951	39,162	5,666	118,660	203,083	69,353	1,239
YoY	91.9%	-	22.1%	-85.5%	-2109.5%	71.1%	476.6%	-98.2%
Net margin	4.6%	1.3%	3.6%	0.6%	25.0%	30.7%	2.9%	0.1%
ROE(Net income)	52.4%	-	12.2%	1.3%	13.3%	17.6%	13.7%	0.2%
ROA (Net income)	6.5%	-	2.6%	0.3%	8.9%	11.5%	2.8%	0.0%

Source: Shared Research based on company data

Notes: Financial statements for the three companies (Canadian Solar, First Solar, and JinkoSolar) are denominated in USD and converted into JPY using the exchange rate as of December 31 (end-December 2023: JPY142.8; end-December 2024: JPY157.2)

ROE and ROA are based on comparable net income for accounting purposes

(JPYmn)	Abalance		Canadian Solar		First Solar		JinkoSolar	
Fiscal year	FY06/24	FY03/25	FY12/23	FY12/24	FY12/23	FY12/24	FY12/23	FY12/24
Accounting standard	JPGAAP	JPGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP	USGAAP
Total assets	150,173	145,802	1,699,071	2,123,745	1,480,452	1,905,707	2,732,554	2,689,120
Shareholders' equity	23,800	24,182	365,537	442,540	955,171	1,253,916	674,613	705,963
YoY	88.9%	1.6%	40.8%	21.1%	22.4%	31.3%	113.0%	4.6%
Equity ratio	15.8%	16.6%	21.5%	20.8%	64.5%	65.8%	24.7%	26.3%
Operating cash flows	44,757	-10,361	97,784	139,155	86,021	191,445	278,143	362,849
Investing cash flows	-21,191	-2,620	-238,728	-308,428	-67,529	-245,721	-304,970	-62,495
Financing cash flows	-5,446	4,128	-159,464	-173,868	-198,073	-239,869	173,831	-134,980

Source: Shared Research based on company data

Note: Financial statements for the three companies (Canadian Solar, First Solar, and JinkoSolar) are denominated in USD and converted into JPY using the exchange rate as of December 31 (end-December 2023: JPY142.8; end-December 2024: JPY157.2)

Strengths and weaknesses

Strengths

In the rapidly evolving solar panel industry, the company has established itself as one of the leading manufacturers with production bases outside China by swiftly and flexibly adapting its supply chain.

Abalance made a full-scale entry into the solar panel manufacturing industry by acquiring VSUN in December 2020. The company explains that it made a foray into Vietnam because of its inexpensive, hard-working labor force and relatively stable political system. Shared Research believes the company sought to capitalize on demand for solar panels free from US import restrictions and tariffs amid prolonged US–China trade frictions. After becoming a consolidated subsidiary, VSUN has expanded its solar panel production capacity, making it the top-selling Japanese brand and company in the market.

Since acquiring VSUN, the company has rapidly strengthened its solar panel manufacturing supply chain by expanding its panel plant (VSUN) in FY06/23 and launching a cell plant (TOYO SOLAR) and an ingot and wafer plant (VSUN) in FY06/24. While the US ramped up its policy stance against China, it also implemented tariff exemption measures for imports from Southeast Asia, which contributed to significant earnings growth for the company. However, following the expiration of these exemptions in June 2024 and the subsequent imposition of new tariffs on imports from Southeast Asia, earnings declined in FY03/25. In response, the company swiftly pivoted its sales strategy away from the US and decided to shift cell production to Ethiopia and establish a new panel plant in the US. Both facilities are scheduled to begin operations in FY03/26. Shared Research believes the company's ability to make swift decisions and execute them under changing external conditions is a key strength.

According to the IEA, in terms of solar panel production by country, China led in 2021 with 74.6%, followed by Vietnam with 6.8%, Malaysia with 3.7%, South Korea with 3.3%, and the United States with 2.7% of overall production. VSUN's main competitors are major solar panel manufacturers operating worldwide, mostly large Chinese companies. Only a few non-Chinese companies, such as First Solar in the US, operate at a comparable scale and manufacture solar panels outside of China—similar to VSUN. In this context, the Abalance group has carved out a unique position as a major solar panel manufacturer with production bases outside China by flexibly and swiftly adjusting its supply chain in response to the rapidly evolving industry amid escalating US–China trade tensions.

With the addition of manufacturing functions for ingots, wafers, and cells, key upstream processes in solar panel production, the company has formed a global supply chain and established the Japan brand, providing end-to-end services in Japan that no other peers can match.

The Abalance group conducts solar power plant trades, sells goods associated with solar power generation, and offers a full range of services from the planning phase of solar power projects to engineering, development, and construction of the facility, operation and maintenance, and even reusing and recycling. Receiving a contract that spans the entire lifecycle of a facility allows the company to provide seamless, speedy, and efficient services. The company also offers customers support in areas such as contracts with power utilities, confirmation of laws and regulations with the local government, explanation to local residents, and paperwork necessary to obtain loans from financial institutions. In addition, recurring revenue businesses generate stable cash flow via income from electricity sales revenue.

Abalance made VSUN a consolidated subsidiary in December 2020, bringing the manufacture of Japan brand solar panels in-house, forming a global supply chain and enabling the company to provide end-to-end services that no other domestic companies can match. By late October 2023, the cell plant of TOYO SOLAR began operations, and in April 2024, the ingot and wafer plant of VSUN became operational, further strengthening Abalance's overarching services. Looking ahead, the company plans to build a cell plant in Ethiopia and a panel and cell plant in the US, demonstrating its proactive efforts to strengthen its supply chain.

VSUN is well recognized by third-party organizations and major purchasers for its sustainable procurement practices and solar panel quality, comparable with major manufacturers. It has also been certified as a Tier 1 supplier by Bloomberg NEF—a US-

based rating agency that assesses factors such as bankability and financial stability—for six consecutive quarters from April–June 2024 through July–September 2025.

Chinese companies dominate the top positions in the global solar panel manufacturer rankings by annual production volume. Meanwhile, VSUN ranks around 30th with an annual production capacity of 4GW. According to a Shared Research estimate, roughly 60% of world's production capacity is shared by some 15 companies, while numerous small and medium-sized manufacturers make up the remaining 40%.

VSUN has gained the recognition of third-party organizations and major buyers not only for the reliable quality and performance of its products, but also for its procurement practices. It has also been certified as a Tier 1 supplier by Bloomberg NEF—a US-based rating agency that assesses factors such as bankability and financial stability—for six consecutive quarters from April–June 2024 through July–September 2025. VSUN has been recognized as a Top Performer in the PV Module Reliability Scorecard (released by US-based PV Evolution Labs [PVEL]) since 2021, becoming one of the few manufacturers to receive this accolade. Further, in an assessment conducted by EcoVadis, a global rating agency based in France that assesses companies' sustainable procurement practices (including their responses to human rights violations in China), VSUN has received the Bronze Medal since 2021.

Weaknesses

Solar panels and cells, the group's main products, are susceptible to demand/supply and price fluctuations due to policy changes by various governments. To mitigate such policy-related risks, the group has begun producing cells in Ethiopia and plans to start panel production in the US.

Solar panels play a crucial role in the transition to a decarbonized society. While governments around the world provide incentives for early adoption of solar power generation, they also tend to impose tariffs on imported goods to protect their economies. The US, a key market for the Abalance group, has set a goal to achieve net-zero greenhouse gas emissions by 2050. This objective necessitates a substantial number of solar panels, creating robust demand. However, solar panel production predominantly takes place in China, which has led to trade tensions between the US and China.

The US has intensified its protectionist stance on products related to solar panels, implementing strict tariffs such as AD, CVD, and safeguard measures on imports from China. Nonetheless, to meet its robust domestic demand, the US temporarily lifted tariffs on imports from four Southeast Asian countries, including Vietnam, for two years from June 2022 (ended in June 2024). With the Inflation Reduction Act (IRA) enhancing domestic production capacity, the US government ended the tariff exemption in June 2024 as planned, and subsequently imposed AD and CVD on imports from four Southeast Asian countries.

In light of these developments, VSUN has avoided shipments to the US since June 2024 and has strengthened sales efforts in Europe and Asia. In FY03/25, the effects of its expanded sales channels began to materialize. On the production front, the company plans to begin cell manufacturing in Ethiopia and panel manufacturing in the US during FY03/26 as part of its strategy to reduce policy-related risks.

The Abalance group's solar panel and cell production scale is still small compared to major manufacturers. To address this, it is expanding production capacity across panels, cells, and ingots/wafers, while working to strengthen its global supply chain.

The Abalance group's main competitors are large solar panel manufacturers, primarily based in China. Among them, LONGi Green Energy Technology and JinkoSolar each boast an annual panel production capacity of 120GW. In comparison, VSUN's annual panel production capacity stands at just 4GW—about 5% of that of the major players. These top-tier manufacturers are involved in the upstream processes as well, manufacturing wafers and cells alongside solar panels. Likewise, the Abalance group is expanding its global supply chain to include in-house production of cells, wafers, and ingots. By FY03/25, VSUN's total production capacity reached 12GW, including a 2GW cell plant that began operations in Ethiopia in April 2025. This remains modest compared to the combined upstream and downstream capacities of JinkoSolar (345GW) and Canadian Solar (176GW). First Solar, a US-based manufacturer operating outside China, has a capacity of 21GW.

The company needs to strengthen its financial soundness to sustain high investment levels. Its equity ratio improved to 16.6% in FY03/25, and it aims to continue enhancing

this ratio through the accumulation of retained earnings.

The company has steadily expanded its production capacity, establishing factories with annual capacities of 4GW each for solar panels, wafers and ingots, and 2GW for solar cells. It plans to build a 4GW cell factory in Ethiopia (JPY16.0bn investment) and a 2.5GW panel factory in the US (JPY13.5bn investment), continuing its high level of capital investment. VSUN has been financing investments to date with loans it secured from a major domestic financial institution in Vietnam. To maintain bank loans amid ongoing high levels of investment, the group as a whole must maintain financial soundness.

Although the company has conducted capital increases, investments have been mostly funded by bank borrowings, resulting in expanded interest-bearing debt and the equity ratio falling to 6.9% at end-FY06/22. Through capital increases and profit accumulation, the equity ratio improved to 15.8% by end-FY06/24 and further to 16.6% by end-FY03/25. Additionally, in July 2024, the company listed TOYO, the parent of TOYO SOLAR, on NASDAQ, raising approximately USD6.0mn. Despite these improvements, with continued high levels of investment, further strengthening of financial stability is necessary.

The company intends to primarily fund future investment plans through internal reserves and borrowings from financial institutions. It also aims to strengthen its equity base by accumulating retained earnings, supported by the continued growth of its Solar Panel Manufacturing and Green Energy businesses.

Financial statements

Income statement

Income statement	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Revenue	4,540	6,495	7,301	5,985	6,678	26,901	92,122	215,284	208,972	72,417
YoY	3.3%	43.1%	12.4%	-18.0%	11.6%	302.8%	242.4%	133.7%	-2.9%	-
Cost of revenue	3,432	5,006	5,123	4,112	4,916	22,112	82,508	185,663	164,398	60,240
YoY	3.5%	45.9%	2.3%	-19.7%	19.6%	349.8%	273.1%	125.0%	-11.5%	-
Cost ratio	75.6%	77.1%	70.2%	68.7%	73.6%	82.2%	89.6%	86.2%	78.7%	83.2%
Gross profit	1,108	1,489	2,178	1,873	1,762	4,788	9,613	29,621	44,573	12,177
YoY	2.5%	34.4%	46.3%	-14.0%	-5.9%	171.7%	100.8%	208.1%	50.5%	-
Gross profit margin	24.4%	22.9%	29.8%	31.3%	26.4%	17.8%	10.4%	13.8%	21.3%	16.8%
SG&A expenses	710	1,374	1,251	1,265	1,400	3,427	8,007	16,816	21,224	8,575
YoY	7.6%	93.3%	-8.9%	1.1%	10.7%	144.7%	133.6%	110.0%	26.2%	-
SG&A ratio	15.6%	21.1%	17.1%	21.1%	21.0%	12.7%	8.7%	7.8%	10.2%	11.8%
Operating profit	397	115	927	608	362	1,361	1,605	12,804	23,349	3,602
YoY	-5.5%	-71.0%	704.7%	-34.4%	-40.5%	276.4%	17.9%	697.8%	82.4%	-
Operating profit margin	8.8%	1.8%	12.7%	10.2%	5.4%	5.1%	1.7%	5.9%	11.2%	5.0%
Non-operating income/expenses	29	-67	-52	-42	-56	-92	-187	1,234	1,545	135
Non-operating income	47	39	34	64	112	376	769	2,953	4,441	1,607
Non-operating expenses	17	106	86	106	169	468	956	1,719	2,896	1,472
Recurring profit	427	49	874	566	306	1,269	1,418	14,038	24,894	3,737
YoY	25.8%	-88.6%	1700.1%	-35.2%	-46.0%	315.3%	11.7%	890.0%	77.3%	-
Recurring profit margin	9.4%	0.7%	12.0%	9.5%	4.6%	4.7%	1.5%	6.5%	11.9%	5.2%
Extraordinary gains/losses	-39	1	42	15	-1	-15	750	-47	-615	-265
Extraordinary gains	3	1	74	15	12	1	1,022	339	47	195
Extraordinary losses	41		32	0	12	16	272	386	662	460
Net income	228	-164	761	327	217	931	1,557	11,928	20,203	2,984
YoY	14.3%	-	-	-57.0%	-33.7%	330.0%	67.2%	666.1%	69.4%	-
Net margin	5.0%	-	10.4%	5.5%	3.2%	3.5%	1.7%	5.5%	9.7%	4.1%
Net income attributable to owners of the parent	231	-176	757	316	211	537	806	4,965	9,530	951
YoY	15.8%	-	-	-58.2%	-33.1%	154.2%	50.1%	516.0%	91.9%	-
Net margin	5.1%	-	10.4%	5.3%	3.2%	2.0%	0.9%	2.3%	4.6%	1.3%

Source: Shared Research based on company data

Note: Any differences between figures in the table and those in company data are due to rounding

- ▶ The company adopted the Accounting Standard for Revenue Recognition from the beginning of FY06/22. Accordingly, it recognizes revenue at the transfer of promised goods and services to its customers, in an amount reflecting the consideration to which it expects to be entitled in exchange for those goods or services.
- ▶ The company adopted the Accounting Standard for Fair Value Measurement from the beginning of FY06/22. It says there is no impact of this change on its financial statements.
- ▶ FY03/25 was an irregular nine-month fiscal period due to a change in the fiscal year-end from June to March.

Balance sheet

Balance sheet	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Cash and deposits	496	672	601	799	1,209	4,722	3,966	20,619	37,740	26,451
Notes and accounts receivable	473	335	335	393	303	1,312	6,156	2,011	3,558	5,434
Merchandise and finished goods	385	423	327	172	246	6,480	26,740	48,827	13,232	16,618
Real estate for sale	118	73	44	414	1,536	365	768	452	1,350	1,597
Work in process	666	2,637	3,659	3,631	4,751	4,462	3,804	4,335	4,891	3,925
Allowance for doubtful accounts	-22	-204	-219	-1	0	-1	-109	-36	-46	-147
Total current assets	2,420	4,692	5,227	6,078	8,553	22,537	57,450	100,049	89,197	89,038
YoY	15.6%	93.9%	11.4%	16.3%	40.7%	163.5%	154.9%	74.1%	-10.8%	-0.2%
% of assets	86.7%	73.3%	72.7%	55.3%	57.9%	57.2%	67.5%	69.6%	59.4%	61.1%
Buildings and structures	11	29	39	116	116	427	569	1,143	4,108	5,623
Accumulated depreciation	-8	-14	-20	-53	-59	-120	-191	-356	-528	-715
Buildings and structures (net)	4	15	19	62	58	306	378	786	3,580	4,907
Machinery, equipment, and vehicles	51	848	970	2,172	2,649	13,626	19,431	27,463	49,659	42,632
Accumulated depreciation	-31	-154	-250	-369	-528	-1,492	-3,080	-5,901	-11,096	-11,734
Machinery, equipment, and vehicles (net)	19	694	720	1,803	2,122	12,133	16,351	21,562	38,563	30,898
Land	148	472	707	1,033	1,133	1,332	1,791	2,403	2,542	2,524
Construction in progress				1,330	2,211	1,331	1,757	7,823	3,391	7,565
Total tangible fixed assets	223	1,222	1,456	4,239	5,529	15,201	20,507	32,943	49,304	46,242
YoY	17.7%	448.6%	19.1%	191.0%	30.4%	174.9%	34.9%	60.6%	49.7%	-6.2%
% of assets	8.0%	19.1%	20.3%	38.6%	37.4%	38.6%	24.1%	22.9%	32.8%	31.7%
Total intangible assets	5	290	217	195	110	365	4,688	7,523	6,404	6,587
YoY	-91.3%	5361.3%	-25.3%	-9.9%	-43.7%	231.8%	1184.4%	60.5%	-14.9%	2.9%
% of assets	0.2%	4.5%	3.0%	1.8%	0.7%	0.9%	5.5%	5.2%	4.3%	4.5%
Investments and other assets	142	195	289	459	554	1,268	2,463	3,134	5,266	3,933
YoY	-24.0%	36.6%	48.4%	59.1%	20.6%	128.9%	94.2%	27.2%	68.0%	-25.3%
% of assets	5.1%	3.0%	4.0%	4.2%	3.8%	3.2%	2.9%	2.2%	3.5%	2.7%
Total fixed assets	371	1,707	1,962	4,893	6,193	16,835	27,659	43,600	60,975	56,763

YoY	-15.4%	360.7%	14.9%	149.4%	26.6%	171.8%	64.3%	57.6%	39.9%	-6.9%
% of assets	13.3%	26.7%	27.3%	44.5%	41.9%	42.7%	32.5%	30.3%	40.6%	38.9%
Total deferred assets				14	17	16	10	42	1	0
Total assets	2,790	6,400	7,189	10,985	14,765	39,388	85,121	143,691	150,173	145,802
YoY	10.2%	129.4%	12.3%	52.8%	34.4%	166.8%	116.1%	68.8%	4.5%	-2.9%
Liabilities										
Accounts payable	529	331	411	533	991	5,058	14,595	16,412	12,252	10,131
Short-term borrowings	410	1,027	1,270	1,147	699	6,499	18,356	35,031	28,753	32,310
Current portion of long-term borrowings	51	697	800	967	1,071	869	1,266	3,070	2,853	1,506
Contract liabilities							16,255	27,843	8,635	8,632
Current portion of long-term accounts payable				75	1,582	2,384	464	460	793	773
Total current liabilities	1,368	3,545	3,873	4,641	6,745	26,212	57,721	100,356	83,261	80,286
Bonds				100	36	116	50	166	66	0
Long-term borrowings	92	1,467	1,139	1,679	3,594	6,105	12,032	13,199	12,703	10,381
Lease obligations	32	25	13	8	0	79	10	483	513	1,466
Long-term accounts payable				1,342	1,966	1,828	7,028	6,267	10,144	9,629
Total fixed liabilities	203	1,733	1,499	4,312	5,859	8,398	19,452	20,563	24,479	22,176
Total liabilities	1,571	5,279	5,373	8,953	12,605	34,611	77,174	120,920	107,741	102,463
YoY	5.6%	236.0%	1.8%	66.6%	40.8%	174.6%	123.0%	56.7%	-10.9%	-4.9%
% of assets	56.3%	82.5%	74.7%	81.5%	85.4%	87.9%	90.7%	84.2%	71.7%	70.3%
Net assets										
Shareholders' equity										
Capital stock	656	701	701	701	702	825	1,243	2,059	2,518	2,521
Capital surplus		45	45	45	47	229	647	1,413	2,195	3,153
Retained earnings	564	333	1,022	1,245	1,368	2,919	3,629	8,486	17,800	18,683
Treasury stock	0	-1	-1	-21	-21	-21	-22	-143	-144	-91
Total shareholders' equity	1,219	1,077	1,767	1,969	2,096	3,953	5,497	11,815	22,369	24,266
Share subscription rights			2	5	3	13	135	266	305	264
Non-controlling interests		43	47	58	63	758	1,939	9,909	18,327	18,892
Total net assets	1,219	1,121	1,816	2,032	2,159	4,777	7,947	22,771	42,432	43,338
YoY	16.9%	-8.1%	62.0%	11.9%	6.2%	121.3%	66.4%	186.5%	86.3%	2.1%
% of assets	43.7%	17.5%	25.3%	18.5%	14.6%	12.1%	9.3%	15.8%	28.3%	29.7%

Source: Shared Research based on company data

Cash flow statement

Cash flow statement	FY06/16	FY06/17	FY06/18	FY06/19	FY06/20	FY06/21	FY06/22	FY06/23	FY06/24	FY03/25 (nine months)
(JPYmn)	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.	Cons.
Pre-tax profit	388	84	917	581	304	1,255	2,168	13,990	24,278	3,472
Depreciation	34	54	123	167	188	708	1,457	1,917	4,677	5,226
Amortization of goodwill	17		101	107	77	12	147	375	139	
Impairment losses	35		28					237	401	1,134
Interest expenses	11	18	44	85	111	317	740	1,473	2,050	1,185
Equity in earnings of affiliates ()	0	13	8	-2	-27	-19	-26	-425	-94	-100
Foreign exchange gains and losses ()	1	0	-5	0	2	-139	49	-1,601	758	-677
Change in trade receivables	52	138	-1	-214	113	-2,419	-11,424	4,294	-1,441	-635
Change in inventories ()	-451	221	-927	-956	-1,270	-3,399	-16,745	-20,712	33,161	-3,401
Change in trade payables	93	-732	79	120	378	3,569	19,793	1,058	-4,498	-3,824
Change in advances received	62	-583	-16	671	63	-197	-1,238	10,176	-19,113	-483
Other			320	283	664	-174	292	7,283	-7,856	-6,374
Subtotal	323	-837	641	391	-647	-240	-4,810	20,867	49,317	-7,783
Interest and dividends income received	1	1	0	1	0	29	117	102	464	233
Interests paid	-12	-17	-44	-85	-114	-298	-754	-1,508	-2,033	-1,079
Income taxes paid	-106	-131	-265	-453	-101	-160	-1,002	-1,062	-3,419	-1,596
Cash flows from operating activities (1)	206	-984	405	-147	-861	-608	-6,449	18,526	44,757	-10,361
Payments into time deposits	-119	-26	-141	-92	-401	-114	-331	-285	-99	-69
Proceeds from withdrawal of time deposits	75	23		41	140	113	96	139	587	166
Purchase of tangible fixed assets	-55	-428	-377	-1,473	-117	-2,732	-6,036	-12,400	-9,656	-3,989
Purchase of intangible assets	-5	-14	-31	-7	-11	-10	-12	-2,198	-1,157	-153
Deposits paid							-787	-5,539	-10,914	-6,975
Purchase of subsidiaries' shares affecting scope of consolidation		-405		-21			-3,992	-1,450	-99	
Loan advances	-105	-12	-44	-154		-431	-980	-124	-2	
Proceeds from collection of loans receivable	131	12	43	38		10	27	113	13	0
Other	-1			-7	-9	-3	-63	-17	29	41
Cash flows from investing activities (2)	-75	-864	-559	-1,620	-472	-1,391	-13,221	-20,670	-21,191	-2,620
Free cash flow (1+2)	131	-1,848	-155	-1,766	-1,333	-1,999	-19,670	-2,144	23,566	-12,981
Repayments of installment payables				-62	-403	-189	-328	-765	-793	-534
Proceeds from short-term borrowings	1,244	1,508	1,713	2,033	1,979	13,812	46,519	70,923	65,378	41,009
Repayments of short-term borrowings	-1,028	-891	-1,471	-1,792	-2,130	-10,823	-36,222	-55,275	-72,327	-35,850
Proceeds from long-term borrowings	70	1,600	671	1,289	3,546	3,625	7,623	5,544	2,455	1,071
Repayments of long-term borrowings	-317	-235	-896	-1,019	-1,399	-1,438	-3,920	-4,686	-4,990	-2,171
Proceeds from issuance of shares		90				224	775	1,399	862	
Other										60
Dividends paid	-50	-55	-67	-86	-87	-89	-98	-117	-138	-88
Cash flows from financing activities	-85	1,991	-62	1,913	1,465	5,290	17,752	17,235	-5,446	4,128
Depreciation and amortization (A)	34	54	123	274	265	720	1,604	2,292	4,816	5,226
Purchase of tangible fixed assets and intangible assets (B)	-60	-442	-408	-1,480	-128	-2,742	-6,048	-14,598	-10,813	-4,142
Change in working capital (C)	307	2,069	847	-246	648	2,889	14,912	16,654	-27,170	5,571
Simple FCF (NI + A + B - C)	-101	-2,633	-374	-644	-300	-4,374	-18,550	-23,995	30,703	-3,536

Source: Shared Research based on company data

Note: Only main accounting items are listed

News and topics

(Update on disclosure) Lawsuit filed against Abalance Corporation and its seven subsidiaries

2025-05-13

Abalance Corporation has announced an update on the progress of a previously disclosed legal case involving the company and its seven subsidiaries.

On December 19, 2024, Abalance disclosed a lawsuit had been filed against the company and its seven subsidiaries. On May 7, 2025 (U.S. time), the company announced it had received a notice from the United States District Court for the Northern District of California regarding an update to the case. According to the notice, the plaintiffs—solar panel manufacturers SHANGHAI JINKO GREEN ENERGY ENTERPRISE MANAGEMENT CO., LTD. and ZHEJIANG JINKO SOLAR CO., LTD.—amended their complaint to remove Abalance Corporation and its subsidiary FUJI SOLAR Co., Ltd. ("FUJI") as defendants while adding two other company subsidiaries: TOYO SOLAR TEXAS LLC ("TOYO TEXAS") and TOYOSOLAR MANUFACTURING ONE MEMBER PRIVATE LIMITED COMPANY ("TOYO PRIVATE"). As a result, Abalance Corporation and FUJI are no longer parties to the lawsuit, and the number of subsidiaries named as defendants has increased to eight, including VSUN.

Reason for the removal and addition of parties in the lawsuit

Abalance Corporation and FUJI were removed from the lawsuit because the plaintiffs determined their actions did not constitute patent infringement. Conversely, the plaintiffs decided to newly add two other subsidiaries—TOYO TEXAS and TOYO PRIVATE—as defendants in the amended complaint.

Outlook

The Abalance group stated it will continue to respect intellectual property rights while carefully reviewing the plaintiffs' claims and demands. Through its appointed US legal counsel, the group intends to assert the legitimacy of its position through ongoing litigation. The company also noted assessing the potential impact of the lawsuit on its consolidated financial results is prohibitively difficult at present and stated it will promptly disclose any material developments should they arise.

Abalance announces planned changes to president and directors

2025-04-28

Abalance Corporation announced planned changes to its president and directors.

At a Board of Directors meeting held on April 28, 2025, the company resolved to propose changes to its president and directors as outlined below. These changes are scheduled to be formally approved at the Annual General Meeting of Shareholders to be held on June 28, 2025 and at a subsequent meeting of the Board of Directors.

Changes in representative directors

Name	New position	Current position
Ryusuke Okada	Senior advisor	President
Junsei Ryu	CEO	Director, senior advisor
Ryoichi Kunimoto	COO	Executive officer, general manager of group business strategy office

Changes in directors

Name	New position	Current position
Motoharu Fujisawa	Vice chairman of the Board	Senior managing director
Kazuyasu Shibata	Director in charge of corporate administration division	General manager of the accounting department, corporate administration division
Koichi Hashimoto	Director in charge of the finance and legal Division	General manager of the finance department, corporate administration division

Subsidiary TOYO Co., Ltd. begins production at its new solar cell plant

2025-04-23

Abalance Corporation announced subsidiary TOYO Co., Ltd. began production at its solar cell plant in Ethiopia in April 2025.

Commencement of production at TOYO's new solar cell plant in Ethiopia

In addition to its main production base in Vietnam, TOYO has established a new solar cell plant in the Federal Democratic Republic of Ethiopia as part of its efforts to build a global supply chain for solar panels and cells. Production began in early April 2025. As an initial shipment, TOYO plans to supply over 80MW of solar cells to customers by end-April. This marks the completion of the first phase of construction for the Ethiopia plant, which is expected to have an annual production capacity of 2GW.

Future production framework

Following the initial shipment, TOYO plans to ramp up production at its new plant, with full-scale operations expected by June 2025. It projects monthly production capacity to reach 150–200MW. As disclosed in the company's announcement on March 25, 2025, titled "Subsidiary TOYO Co., Ltd. begins Phase 2 construction of solar cell plant in Ethiopia," the subsidiary has already begun preparations for Phase 2 construction (with an annual production capacity of 2GW), in anticipation of strong external demand and future needs at TOYO's new solar panel plant currently under construction in Houston, Texas. Once both phases are complete, the plant's total annual production capacity will reach 4GW. TOYO aims to strengthen its global supply chain for solar panels and cells to meet growing global demand for renewable energy.

Company to issue new shares through third-party allotment

2025-04-10

Abalance Corporation announced a new share issuance through a third-party allotment.

The company's Board of Directors resolved today to issue new shares through a third-party allotment to Director Junsei Ryu, Core Competence Corporation, and DL Green Investments LPF. As Ryu has a special interest in the transaction, he did not participate in the resolution.

Overview

Junsei Ryu and Core Competence Corporation

- Payment date: April 28, 2025
- Number of new shares to be issued: 408,700 common shares
- Issue price: JPY465.00 per share
- Total proceeds: JPY190mn
- Method of offering/allotment: Third-party allotment—322,600 shares to Ryu Junsei and 86,100 shares to Core Competence Corporation

DL Green Investments LPF

- Payment date: April 28, 2025
- Number of new shares to be issued: 693,800 common shares
- Issue price: JPY432.45 per share
- Total proceeds: JPY300mn
- Method of offering/allotment: Third-party allotment—693,800 shares to DL Green Investments LPF

Purpose and rationale

The Abalance group is steadily expanding its business foundation to become a leading global player in renewable energy. It is driving growth through Vietnam Sunergy Joint Stock Company, a consolidated subsidiary manufacturing solar panels in Vietnam, and TOYO Co., Ltd., a NASDAQ-listed company in the US. In Japan, the group is shifting to a recurring revenue business model, prioritizing stable earnings by increasing ownership of solar power plants. It is also actively pursuing acquisitions of such facilities through M&A to accelerate this shift.

The group aims to enhance its corporate value over the medium to long term by increasing in-house ownership of solar power plants to 1GW by 2030. Building these facilities requires significant capital—ranging from hundreds of millions to several billions of yen per project. The group currently funds these developments through long-term loans from financial institutions and internal capital. It plans to use the proceeds from this share issuance to supplement those funding needs and accelerate solar plant construction. The company sees this financing as necessary to strengthen its financial base and support long-term growth.

Overview of the financing

Method

Through the third-party allotment, Abalance expects to immediately raise funds via a new share issuance. While considering existing shareholders' interests, the company evaluated several financing options to secure the capital needed for solar power plant construction. It concluded that the third-party allotment offered the most effective solution.

Amount of proceeds, intended use, and expected timing of disbursement

Proceeds

- Total proceeds: JPY490mn
- Estimated issuance costs: JPY10mn
- Estimated net proceeds: JPY480mn

Specific use of proceeds

- Use: Construction of solar power plants in the Kyushu region
- Amount to be allocated: JPY480mn
- Expected disbursement period: May 2025–April 2026

Major shareholders and ownership ratios

Pre-offering (as of March 31, 2025)		Post-offering	
Shareholder name	Ownership ratio	Shareholder name	Ownership ratio
Ryu Junsei	24.43%	Ryu Junsei	24.71%
Iizuka Future Design Co., Ltd.	3.61%	DL Green Investments LPF	3.66%
Yutaka Hino	2.75%	Iizuka Future Design Co., Ltd.	3.40%
BNYM AS AGT/CLTS NON TREATY JASDEC	2.38%	Yutaka Hino	2.59%
Hiroshi Yamashita	2.13%	BNYM AS AGT/CLTS NON TREATY JASDEC	2.24%
Isao Tsukamoto	2.07%	Hiroshi Yamashita	2.01%
Rakuten Securities, Inc.	1.67%	Isao Tsukamoto	1.95%
SBI Securities Co., Ltd.	1.51%	Rakuten Securities, Inc.	1.57%
Yoshie Iizuka	1.00%	SBI Securities Co., Ltd.	1.42%
BANK JULIUS BAER AND CO. LTD. SINGAPORE CLIENTS	0.85%	Yoshie Iizuka	0.94%
Total	42.40%	Total	44.50%

Note: Post-offering ownership ratios are based on the total number of shares outstanding as of March 31, 2025 (excluding treasury shares), plus the 1,102,500 new shares to be issued.

Outlook

The company expects this third-party allotment to have only a minor impact on the group's consolidated financial results.

Abalance to increase stake in VSUN following consolidated subsidiary's share buyback

2025-04-03

Abalance Corporation announced an increase in its equity interest in Vietnam Sunergy Joint Stock Company (VSUN) following a resolution by one of its consolidated subsidiaries to repurchase its own shares.

The company's consolidated subsidiary, Fuji Solar Co., Ltd., which has a stake in VSUN, has resolved to acquire its own shares. As a result, the company's equity interest in VSUN will increase.

Reason for the share buyback by Fuji Solar

Consolidated subsidiary Fuji Solar decided to buy back its own shares in response to an offer from certain shareholders. Fuji Solar plans to complete the buyback by end-April 2025, with the total acquisition price estimated at approximately JPY1.0bn.

Change in the company's equity interest in VSUN

VSUN is accounted for as a consolidated subsidiary based on control, as Abalance indirectly holds a 44.4% stake through its subsidiary Fuji Solar. Fuji Solar's share buyback is expected to raise Abalance's equity interest in VSUN by 14.4pp, bringing it to 58.8%.

Outlook

Since the transaction will take place in FY03/26, it will not affect the company's consolidated earnings for FY03/25. Abalance expects this higher ownership to affect net income attributable to owners of the parent and plans to reflect the impact in its consolidated earnings forecast for FY03/26.

Subsidiary TOYO Co., Ltd. begins Phase 2 construction of solar cell plant in Ethiopia

2025-03-25

Abalance Corporation announced that subsidiary TOYO Co., Ltd. will begin Phase 2 construction of its solar cell plant in Ethiopia.

Reason for Phase 2 construction of solar cell plant

The Abalance group, led by TOYO, is working to establish a global supply chain for solar panels and cells, with plans to complete a panel plant in Texas, US, and a cell plant in Ethiopia. Amid the global shift toward a decarbonized society, Abalance expects continued growth in demand within the solar power market.

In light of these market conditions, and as announced in the October 15, 2024 release titled "Construction of new plant by subsidiary TOYO Co., Ltd.," TOYO has decided to move forward with the Phase 2 construction of the solar cell production facility in Ethiopia, adding an additional 2GW of production capacity to the initial Phase 1 facility (2GW capacity, scheduled for completion in March). Through this expansion, TOYO aims to establish a stable cell supply system to support its new panel plant in Texas as well as customers in Europe and Asia. Abalance believes this initiative will contribute to the medium- to long-term growth of its Solar Panel Manufacturing business.

Overview of Phase 2 construction of solar cell plant

- Company name: TOYO SOLAR MANUFACTURING ONE MEMBER PLC
- Location: Hawassa, Sidama Region, Federal Democratic Republic of Ethiopia
- Land area: 28,000sqm
- Investment amount: USD46.8mn (approximately JPY7.0bn; land and buildings will be leased, and the investment covers manufacturing and auxiliary equipment)
- Funding: Under consideration, including self-financing, bank loans, and other direct financing methods
- Business operations: Manufacturing and sales of solar cells
- Production capacity: 4GW (including 2GW from Phase 1)
- Number of employees: Approximately 880
- Construction start: Scheduled for April 2025
- Completion: Expected between July and September 2025 (Q2 FY03/26)

Outlook

The company expects this matter to have a minimal impact on its earnings for FY03/25.

Dividend from surplus

2025-03-24

Abalance Corporation announced a dividend from surplus.

At a Board of Directors meeting held on March 24, 2025, the company resolved to pay a dividend from surplus with a record date of March 31, 2025.

Details

- Record date: March 31, 2025
- Dividend per share: JPY3.00
- Total dividend amount: JPY53mn
- Effective date: June 30, 2025
- Dividend source: Retained earnings

The company changed its fiscal year-end to March, starting from FY03/25. For FY06/24, the company paid an annual dividend of JPY8.00 per share, comprising an interim dividend of JPY3.00 and a year-end dividend of JPY5.00.

Reasons

The company's basic policy is to maintain stable dividends and actively return profits to shareholders, while securing the internal reserves necessary for future business development and strengthening its management foundation. As noted in the news release titled "Cancellation of interim dividend" dated February 14, 2025, the year-end dividend for FY03/25 had been left undecided. However, in line with the company's policy of paying stable dividends, it has decided to pay a year-end dividend of JPY3.00 per share.

Revisions to full-year earnings forecast due to fiscal year-end change, cancellation of interim dividend, and absorption-type merger of consolidated subsidiary

2025-02-14

Abalance Corporation announced revisions to its full-year earnings forecast due to a change in its fiscal year-end, the cancellation of its interim dividend, and the absorption-type merger of a consolidated subsidiary.

Full-year earnings forecast due to fiscal year-end change

The company revised its full-year earnings forecast for FY06/25, as its accounting period will be shortened to nine months following a fiscal year-end change, subject to the approval of "Partial Amendments to the Articles of Incorporation" at the extraordinary general meeting of shareholders scheduled for February 21, 2025.

Revised earnings forecast (nine-month period from July 1, 2024 to March 31, 2025; previous forecast based on a 12-month period)

- Revenue: JPY60.0bn (previous forecast: JPY80.0bn)
- Operating profit: JPY5.1bn (previous forecast: JPY10.0bn)
- Recurring profit: JPY5.1bn (previous forecast: JPY10.0bn)
- Net income attributable to owners of the parent: JPY1.0bn (previous forecast: JPY6.0bn)

Reasons for revision

The company plans to change its fiscal year-end from June 30 to March 31, subject to the approval of "Partial Amendments to the Articles of Incorporation" at the extraordinary general meeting of shareholders scheduled for February 21, 2025. As a result, the current fiscal year will be an irregular nine-month period from July 1, 2024 to March 31, 2025, serving as a transition period for the fiscal year-end change. Accordingly, the company revised its earnings forecast previously disclosed on August 14, 2024.

Cancellation of interim dividend payment

Dividends

- Interim dividend per share: JPY0 (previous forecast: undecided; previous fiscal year actual: JPY3)

The year-end dividend remains undecided.

Reasons

The company's core policy is to maintain stable dividends and proactive shareholder returns while securing internal reserves necessary for future business expansion and financial strength. Amid a growing global renewable energy market, the company group is focused on enhancing corporate value, with its solar panel business as the key growth driver. However, profit declined YoY, affected by weaker market conditions due to an easing of global supply-demand pressures in solar-related products, as well as uncertainty over the US tariff policies in its key market and strategic investments for global expansion.

After carefully reviewing the business environment surrounding the group, the company has decided not to pay an interim dividend for this fiscal year. Regarding the year-end dividend, the company will make a decision based on its stable dividend policy while closely monitoring future earnings trends.

Absorption-type merger with consolidated subsidiary

Purpose of merger

The company's consolidated subsidiary, Abit Corporation, operates an IT business, providing software license sales, system development, and related services. To streamline the group's organizational structure and optimize the allocation of management resources, the company has decided to merge Abit into itself through an absorption-type merger.

Overview

- Effective date of the merger: March 31, 2025 (planned)
- Merger method: Absorption-type merger, with the company as the surviving entity and Abit to be dissolved

Outlook

As the merger is with a wholly owned subsidiary, its impact on the company's financial performance will be minimal.

Change of fiscal year-end (end of business year) and partial amendments to the Articles of Incorporation, determination of the amount and details of stock option compensation for directors, and the convening of an Extraordinary General Meeting of Shareholders

2025-01-10

Abalance Corporation announced a change to its fiscal year-end (end of the business year) and partial amendments to its Articles of Incorporation, a decision regarding the amount and details of stock option compensation for directors, and the convening of an Extraordinary General Meeting of Shareholders (including agenda items, etc.).

Change of fiscal year-end (end of business year) and amendments to Articles of Incorporation

Abalance has decided to change its fiscal year-end (end of business year), subject to approval of the corresponding agenda item regarding amendments to the company's current Articles of Incorporation at the Extraordinary General Meeting of Shareholders scheduled for February 21, 2025.

Reasons for the change of fiscal year-end

Currently, the company's fiscal year runs from July 1 to June 30 of the following year. However, as the majority of its operating revenue is generated by overseas subsidiaries and the company plans to continue expanding its international business operations, it has decided to change its fiscal year to April 1 through March 31 of the following year. This change is intended to align the company's fiscal year with those of its overseas subsidiaries, enabling smoother global business operations and further enhancing the timeliness and transparency of management information.

Change of fiscal year-end

- Current: June 30
- After change: March 31

To facilitate the transition toward this new fiscal year-end, the company's 26th fiscal period will span only nine months (from July 1, 2024 through March 31, 2025).

Outlook

The company plans to announce its consolidated earnings forecast for its 26th fiscal year (July 1, 2024, through March 31, 2025), which will serve as the transition period for its change of fiscal year-end, once details have been finalized.

Partial amendments to Articles of Incorporation

The company will make the necessary amendments to its Articles of Incorporation to reflect this change in fiscal year-end (end of business year).

Amount and details of stock option compensation for directors

The company has decided to propose an amount and details for director stock option compensation as an agenda item during its Extraordinary General Meeting of Shareholders scheduled for February 21, 2025.

Reasons for submission and justification for the appropriateness of the compensation

The company has decided to submit an amount and specific details for stock option (share subscription rights) compensation for directors, including those serving as audit and supervisory committee members, as an agenda item during its Extraordinary General Meeting of Shareholders. These stock options aim to enhance director motivation and morale to improve the company's performance and corporate value, while further aligning the interests of directors with those of shareholders through the sharing of value. The company has determined these amounts and specific details for stock options are appropriate through a comprehensive evaluation of factors, including director contribution and execution of duties.

The amount of compensation for directors regarding stock options (share subscription rights)

The current compensation for the company's directors is capped at JPY100mn annually for directors not serving as audit and supervisory committee members (excluding employee salaries) and JPY30mn annually for directors serving concurrently as audit and supervisory committee members. The company plans to submit a proposal to establish a separate framework for stock option (share subscription rights) compensation, setting an annual cap of JPY100mn, of which up to JPY10mn will be allocated to directors serving concurrently as audit and supervisory committee members. The current board consists of six directors, including three who serve concurrently as audit and supervisory committee members.

Convening of Extraordinary General Meeting of Shareholders and determination of agenda items

The company has announced the date, time, and agenda items for the Extraordinary General Meeting of Shareholders (with December 31, 2024 as the record date for determining eligible shareholders) during which it will submit the two aforementioned proposals.

Date and time of the Extraordinary General Meeting of Shareholders

- February 21, 2025, at 1:00 p.m.

Agenda items for the Extraordinary General Meeting of Shareholders

- Proposal 1: Partial amendments to the Articles of Incorporation
- Proposal 2: Amounts and details of stock option compensation for directors

Lawsuit filed against Abalance Corporation and its seven subsidiaries

2024-12-19

Abalance Corporation announced that a lawsuit has been filed against the company and its seven subsidiaries.

Abalance announced that it, along with its seven subsidiaries, including Vietnam Sunergy Joint Stock Company ("VSUN") (collectively, the "company group"), has been sued by solar panel manufacturers SHANGHAI JINKO GREEN ENERGY ENTERPRISE MANAGEMENT CO., LTD. and ZHEJIANG JINKO SOLAR CO., LTD. (collectively, "JINKO") over alleged patent

infringement. The company group has received a complaint from the United States District Court for the Northern District of California regarding the lawsuit.

Overview

According to JINKO's claims in the complaint, VSUN's solar panel products, including N-type TOPCON solar panels, allegedly incorporate JINKO's patented technology without authorization. Consequently, JINKO filed the lawsuit seeking compensation for past and future damages resulting from the alleged patent infringement. JINKO is demanding that the company group pay at least reasonable royalties and lost profits attributable to the unauthorized use of its patented technology. Additionally, JINKO is seeking an injunction to prohibit further patent infringement activities.

Details of the litigation and claim amount

- Litigation details: Claim for reasonable royalties, damages, and an injunction related to patent infringement
- Claim amount: Undetermined

Outlook

According to the company, the company group remains committed to respecting intellectual property rights and has already begun consulting with a US-based law firm specializing in patent law regarding the litigation. The company plans to thoroughly examine the plaintiff's claims and pursue its legal defense in the lawsuit. At this stage, the potential impact of the litigation on the company's consolidated financial results is uncertain. Should any material developments requiring disclosure arise, the company intends to announce them promptly.

Construction of a new plant in the US by a subsidiary (through the acquisition of a second-tier subsidiary)

2024-11-25

Abalance Corporation announced the construction of a new plant in the US by a subsidiary (through the acquisition of a second-tier subsidiary).

Overview

Abalance has decided to construct a new plant in the US through consolidated subsidiary TOYO Solar LLC ("TOYO LLC"). TOYO LLC is a consolidated subsidiary of TOYO Co., Ltd. ("TOYO"), a company listed on the NASDAQ stock exchange in the US. Specifically, under a partnership agreement expected to be concluded with Solar Plus Technology Inc. ("Solar Plus"), a US-based solar panel company, TOYO LLC plans to acquire 100% of the membership interests in Solar Plus Technology Texas LLC ("Texas LLC"), owned by Solar Plus. As part of the acquisition, TOYO Holdings LLC, which owns 100% of TOYO LLC's membership interests, will transfer 24.99% of its interests to Solar Plus. Following this transaction, Texas LLC will become a second-tier subsidiary of Abalance, with Abalance's ownership stake in both TOYO LLC and Texas LLC expected to be 34.10%. After finalizing the agreement, the group will prepare to commence production at the new solar panel plant and focus on establishing a business foundation in the US market.

Reasons for constructing new plant and concluding the partnership agreement

The group has been exploring the establishment of a new production base for solar panels and cells in the US to address the medium- to long-term growth potential of the US solar power market. Texas LLC has been making preparations to manufacture solar panels near Houston, Texas. It has already signed lease agreements for the land and building of the factory, and equipment installation preparations are underway. The acquisition of Texas LLC by TOYO LLC enables TOYO to shorten the time required to commence solar panel production in the US. Going forward, TOYO plans to solidify its manufacturing plans for the new facility. Abalance regards this initiative as a key project for building a domestic supply chain for solar panel manufacturing in the US and enhancing the group's long-term corporate value. TOYO targets the start of solar panel production at the factory by mid-2025, with an annual production capacity of 2.5GW expected to be achieved by the end of the same year. It plans to source the solar cells required for production from its Ethiopian factory.

Overview of the new solar panel plant in the US

- Location: 6115 Greens Road, Humble, Texas 77396, USA
- Site area: 567,140 square feet
- Production capacity and planned investment amount:
 - Phase 1: 1GW, USD30mn (approx. JPY4.5bn), Start of operations: Mid-2025
 - Phase 2: 1.5GW, USD60mn (approx. JPY9bn), Start of operations: Late 2025

Abalance 3856

- Total: 2.5GW, USD90mn (approx. JPY13.5bn)
- Notes: Exchange rate: JPY150/USD. The land and building are leased, and the investment amount covers manufacturing and auxiliary equipment. The company plans to increase the production capacity to 6.5GW by 2029.
- Planned funding source: Group's own funds and other financing methods under consideration.
- Business operations: Manufacturing and sales of solar panels.

Outlook

The company expects this matter to have a minimal impact on its earnings for FY03/25.

Construction of new plant by subsidiary TOYO Co., Ltd.

2024-10-15

Abalance Corporation announced the construction of a new plant by subsidiary TOYO Co., Ltd. (hereinafter referred to as "TOYO").

Reason for the construction of a new plant

Consolidated subsidiary TOYO has been monitoring market trends and policy developments, including tax regulations, in the US, in addition to Vietnam, its main operational base. At the same time, it has been exploring the establishment of a new production base for solar panels and cells to strengthen its global supply chain. As a result, the group has decided to construct a new plant for solar cell production—the upstream process of solar panel manufacturing—in the Federal Democratic Republic of Ethiopia. The plans to establish a production base in the US remain unchanged.

Overview of the new plant construction

- Location: Hawassa, Sidama Region, Federal Democratic Republic of Ethiopia
- Land area: 31,500sqm
- Investment amount: USD60mn (approximately JPY9.0bn; the land and buildings will be leased, and the investment covers manufacturing and auxiliary equipment)
- Funding source: Self-financing
- Business operations: Manufacturing and sales of solar cells
- Production capacity: 2GW
- Number of employees: Approximately 880
- Construction start: Scheduled for mid-November 2024
- Completion: Expected around March 2025

Outlook

The company expects this matter to have a minimal impact on its earnings for FY03/25.

Other information

History

<History>	
April 2000	Established Real Communications Co., Ltd.
August 2000	Moved head office to Chiyoda-ku, Tokyo
February 2001	Changed company name to Realcom Co., Ltd.
February 2005	Moved head office to Taito-ku, Tokyo
February 2006	Established US subsidiary Realcom Technology, Inc. for sales and support services in the US and planning and development of next-generation productsTechnology, Inc.
September 2007	Listed on the Mothers Market of the Tokyo Stock Exchange (TSE)
March 2008	Established US subsidiary Realcom U.S., Inc.
November 2011	Made WWB Corporation a wholly owned subsidiary via stock exchange
September 2012	Moved head office to Shinagawa-ku, Tokyo
March 2017	WWB Corporation established an SPC (WW LLC) and made Valors Corporation a subsidiary
March 2017	Changed company name to Abalance Corporation
February 2018	WWB Corporation established Fuji Solar Co., Ltd.
November 2018	Switched listing from the Mothers Market to the Second Section of TSE
October 2019	Established Abit Corporation through an incorporation-type split of the IT division
December 2020	Made Vietnam Sunergy Joint Stock Company (VSUN) a subsidiary
June 2021	WWB Corporation established Birdy Fuel Cells LLC
October 2021	WWB Corporation made Campanio Solar Co., Ltd. a subsidiary via second-tier subsidiary, Valors Corporation
October 2021	WWB Corporation made Japan Solar Power Co., Ltd. a subsidiary
November 2021	WWB Corporation succeeded the industrial-use solar power generation business from Japan Life Support Co., Ltd.
March 2022	Abit Corporation made Digital Sign Co., Ltd. a subsidiary
March 2022	WWB Corporation made Japan Mirai Energy Co., Ltd. and J. Mirai Co., Ltd. subsidiaries via second-tier subsidiary, WWB Solar 03 LLC
March 2022	Made Meiji Machine Co., Ltd. an equity-method affiliate
April 2022	Following the market reclassification by TSE, the company's shares were listed on the Standard Market.
October 2022	WWB made WWB Thang Long Corporation a subsidiary
November 2022	VSUN established Vietnam Sunergy Cell Company Limited (Cell Company)
January 2023	WWB made Flex Holdings Co., Ltd. a subsidiary
October 2023	Fuji Solar established TOYO Company Limited (TOYO)
June 2023	WWB made Taiwa Town Solar Power LLC and Ohira Village Solar Power LLC subsidiaries
October 2023	WWB made Sunshineties Co., Ltd. a subsidiary
January 2024	Joined the Japan Business Federation (Keidanren)
January 2024	Subsidiary TOYO made TOYO SOLAR its own subsidiary through the transfer of shares from VSUN
February 2024	VSUN established Vietnam Sunergy Wafer Company Limited.
July 2024	TOYO listed its shares on the NASDAQ Capital Market in the US
October 2024	Subsidiary TOYO established TOYO SOLAR MANUFACTURING ONE MEMBER PLC.
November 2024	Subsidiary TOYO made TOYO Solar Texas LLC PLC (current name) its subsidiary
November 2024	Subsidiary Abit Corporation sold all of its shares in Digital Sign Co., Ltd.
February 2025	Changed fiscal year-end to March (effective from FY2024)
March 2025	Abalance absorbed its subsidiary, Abit Corporation, through a merger
March 2025	Subsidiary Valors Corporation absorbed its subsidiary, Valors Engineering Corporation, through a merger

Source: Shared Research based on company data

Major shareholders

Mr. Junsei Ryu has been Abalance's major shareholder since the company made WWB Corporation a wholly owned subsidiary through a share exchange conducted in November 2011. The company has no business ties with the other individual and corporate shareholders shown below.

As of end-March 2025

Shareholder name	Shares held(year-end; '000)	Shareholding ratio
Ryu Junsei	4,360	24.43%
Iizuka Future Design Co., Ltd.	645	3.61%
Yutaka Hino	490	2.75%
BNYM AS AGT/CLTS NON TREATY JASDEC	425	2.38%
Hiroshi Yamashita	380	2.13%
Isao Tsukamoto	369	2.07%
Rakuten Securities, Inc.	298	1.67%
SBI Securities Co., Ltd.	270	1.51%
Yoshie Iizuka	179	1.00%
BANK JULIUS BAER AND CO. LTD. SINGAPORE CLIENTS	152	0.85%
Total	7,568	42.40%

Source: Shared Research based on company data

Dividend policy

Abalance's basic policy is to accomplish stable dividend payments and actively return profits to shareholders in accordance with the state of its finances, while maintaining the necessary internal reserves to develop future businesses and strengthen the company's financial position. The company has paid dividends twice a year, consisting of an interim dividend and a year-end dividend, through FY06/24.

Corporate governance

Following approval at the June 2025 General Meeting of Shareholders, the company transitioned to a two-person representative director structure, appointing Mr. Junsei Ryu and Mr. Ryoichi Kunimoto. In February 2024, the company disclosed that revenue and cost of revenue had been incorrectly recorded in relation to a subsidiary's transactions involving paid provisions, based on the Accounting Standard for Revenue Recognition. Additionally, in May 2024, a former executive officer was arrested for insider trading. In response to these developments, the company has been working to strengthen its governance framework starting from FY06/24. In September 2024, the company appointed Mr. Ryusuke Okada—an external candidate—as president and representative director. It also established a Risk and Compliance Committee, chaired by an independent outside director, and reinforced the functions of its Internal Control Committee, chaired by an executive officer. Both committees serve as advisory bodies to the Board of Directors and are intended to enhance risk management and compliance. Furthermore, the company created two new specialist subcommittees within the Management Council: the Finance Committee and the Investment Committee.

Following the governance reforms implemented since September 2024, the company plans to adopt a co-CEO structure with two internal personnel serving as representative directors starting in June 2025. In addition, two members from the corporate administration division will be appointed as directors to further strengthen the governance framework in pursuit of enhanced corporate value. Shared Research understands while the company has achieved rapid growth by leveraging its venture spirit since its founding, the development of its governance framework had not fully kept pace with its expanding business scale. Following the reforms initiated in September 2024, the company is now transitioning toward a structure that balances growth potential with organizational strength.

Top management

Junsei Ryu (born in October 1971)

Date	History
June 2006	Established WWB Corporation and assumed representative director
November 2011	Representative director of Abalance Corporation
September 2016	Director of Abalance
April 20218	Chairperson of VIETNAM SUNERGY JOINT STOCK COMPANY (current)
July 2024	Chairperson of TOYO Co., Ltd (current)
May 2025	Representative director, chairperson, and CEO of WWB (current)
June 2025	Representative director, chairperson, and CEO of Abalance (current)
July 2025	Representative director, chairperson, and CEO of Valors (current)

Source: Shared Research based on company data

Ryoichi Kunimoto (born in July 1968)

Date	History
April 1991	Joined Tomen Corporation (currently Toyota Tsusho Corporation)
May 2003	Director of Net-2Com Corporation
October 2008	Executive officer, Ya-Man Ltd
July 2014	Executive officer, Testsujin Inc. (currently Tetsujin Holdings Inc.)
December 2018	Deputy general manager of corporate division, Abalance Corporation
January 2022	Executive officer, Fuji Solar Co., Ltd. (current)
September 2024	Executive officer and general manager of group business strategy office, Abalance
June 2025	Representative director, president, and COO of Abalance (current)
July 2025	Representative director of WWB (current)
July 2025	Representative director of Valors (current)

Source: Shared Research based on company data

Corporate governance

Form of organization and capital structure	
Form of organization	Company with Audit & Supervisory Committee
Controlling shareholder(excluding parent company)	-
Parent company	None
Directors and Audit & Supervisory Committee	
Number of directors under Articles of Incorporation	14
Number of directors	8
Directors' term of office under Articles of Incorporation	One year
Chairperson of the Board of Directors	President
Number of outside directors	3
Number of independent outside directors	3
Number of auditors under Articles of Incorporation	-
Number of members of Audit & Supervisory Committee	3
Number of outside directors(Audit & Supervisory Committee)	3
Number of independent outside members of Audit & Supervisory Committee	-
Other	
Participation in electronic voting platform	None
Providing convocation notice in English	None
Implementation of measures regarding director incentives	Stock option
Eligible for stock option	Inside directors, Outside directors, Employees, Directors of subsidiaries, Employees of subsidiaries, Other
Disclosure of directors' compensation	No individual compensation disclosed
Policy to determine amount and calculation method of remuneration	Y
Corporate takeover defenses	None

Source: Shared Research based on company data

Note: As of June 2025

Company philosophy

The Abalance group has adopted the corporate philosophy of “Best Values,” aiming to improve and enhance societal life through value creation by focusing on the provision of advanced products, businesses, and services. The group is committed to contributing to the sustainable development of society. It has also established its vision of becoming an “Excellent Creative Company.” Details are as follows.

Corporate philosophy “Best Values”

- We will continue to contribute to the sustainable development of society by striving to improve social life through value creation focusing on the provision of advanced products, operations, and services.
- Based on the vision of becoming an “Excellent Creative Company” by providing value, we will continue to improve and maximize employee happiness, win-win relationships with our clients and society, and corporate and shareholder value.
- Abalance Group will continue to grow driven by value creation, love, and excitement.

Vision “Excellent Creative Company”

- We will continue to contribute to a truly bright society by creating peace, safety, and optimal green energy, as well as light that illuminates people’s eyes and hearts.
- We will provide information technology and services that enhance productivity, which is safer, more convenient, and more advanced.
- We will provide construction machinery that is safer, more rational, more economical, and more productive.
- We will aim to be a global corporate group that always anticipates social changes and contributes widely to society, and pursues optimal management strategies.

Sustainability

The Abalance group is dedicated to balancing social and economic value by advancing the businesses of its group companies that contribute to the supply of renewable energy. Through these initiatives, the group aims to reduce greenhouse gas emissions, a key driver of global warming, while enhancing the medium- to long-term value of its group companies. Under its 2030 group vision, Abalance aspires to become a “core global company in renewable energy,” leveraging its Solar Panel Manufacturing and Green Energy businesses as growth engines to achieve sustainable growth and maximize corporate value.

Profile

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Abalance Corporation

Phone

03-6810-3028

Established

2000-04-17

IR Contact

<https://www.abalance.jp/en/contact>

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Listed On

Tokyo Stock Exchange, Standard Market

Exchange Listing

2007-09-19

Fiscal Year-End

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We offer corporate clients comprehensive report coverage, a service that allows them to better inform investors and other stakeholders by presenting a continuously updated third-party view of business fundamentals, independent of investment biases. Shared Research can be found on the web at <https://sharedresearch.jp>.

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