TESS Holdings (TSE Code:5074)
A Promising Company for Renewable Energy

GIR View

A Promising Renewable Energy Company

Although the company's stock price has been low due to repeated downward revisions, including valuation gains and losses on derivatives from forward exchange contracts for business fuel and delays in the sale of development land and rights, GIR is focusing on TESS Holdings Co., Ltd. as a company with extensive technology and expertise in the renewable energy business.

Viewing Market Changes as Business Opportunities

TESS Holdings Co., Ltd., which has an extensive track record in co-generation systems, has steadily expanded its business through Engineering, Procurement, and Construction (EPC) for FIT solar power generation facilities and renewable energy power generation business centered on mega solar power generation, in response to the rapid expansion of Japan's feed-in-tariff (FIT) system. In Japan, the construction of mega-solar facilities is considered to have peaked, and the company is quickly shifting management resources to new businesses such as EPC for power storage plants for power grids and resource-recycling biomass fuel business.

In the U.S. stock market, the market valuation of solar panel-related companies has declined over the past year or two, while renewable energy-related utilities are enjoying high market valuations during the pre-investment period. It will be important to keep a close eye on what changes will be made to the U.S. energy policy under the Trump administration, and the timing and degree of impact of these changes on Japan.

KEY STATISTICS

Key Stock Statistics

Recent Price (1/10/2025)	¥273
52-week High/Low	¥490/¥249
Shares Outstanding	70,644,130 shares
Market Cap	¥19,286 million
PER	27.49 times
PSR	0.51 times
Dividend (Dividend Yield)	¥7.66 (2.81%)

Sector Overview

Sector	Construction

Financials (FY06/2025 forecast)

Net sales	¥38,000 million
Operating profit margin (%)	7.1%
EBITDA margin (%)	15.5%

Management

President	Kazuki Yamamoto

URL https://www.tess-hd.co.jp/english/

However, compared to other renewable energy-related companies in the same industry, TESS Holdings Co., Ltd. has amassed a wide range of technologies and expertise, so there is a strong potential for the company to view market changes as business opportunities, and we believe the company deserves attention.

Results for the Six Months Ended December 31, 2024

In the results for the six months ended December 2024, net sales increased 19.5% year-on-year to 18.0 billion yen, operating profit increased 36.5% year-on-year to 2.41 billion yen, ordinary profit decreased 83.5% to 240 million yen, and profit decreased 31.0% to 600 million yen. The Energy Supply Segment achieved higher sales and operating profit, despite a slight contraction in the electricity retail business due to the termination of services by a large customer, owing to the steady addition of renewable energy power generation and on-site PPA (Power Purchase Agreements), as well as strong performance in the EPC (Engineering, Procurement, and Construction) business for both energy conservation and renewable energy in the Engineering Segment. As for ordinary profit and income before taxes, which were already released in November 2024, the company posted a significant income decrease mainly due to a derivatives valuation loss.

In the Engineering Segment, orders received were 4.13 billion yen, 37.6% year-on-year, and the order backlog was 13.5 billion yen, down 6.1% year-on-year. Orders were mainly for commissioned EPC projects for solar power generation facilities, and EPC for energy conservation and renewable energy for completed construction performed favorably. Although not reflected in results for the six months ended December 31, 2024, the company received a large order for EPC for power storage plants to be installed alongside (called “co-location”) solar power plants (released on January 31, 2025), and also signed a memorandum of understanding with Daiwa Energy & Infrastructure for the commercialization of grid storage battery projects totaling 2 GWh (released on February 6, 2025). The company is beginning to see results from its efforts to expand its storage battery EPC business, one of the growth drivers of its Medium-term Management Plan.

In the Energy Supply Segment, the supply of renewable energy through on-site solar power generation systems under the on-site PPA model has been growing steadily. The addition of the Fukuoka-Miyako Mega Solar power plant as a consolidated subsidiary and strong sales of biomass fuels also contributed to the growth of the business.

On the balance sheet, total assets increased by 23.9 billion yen to 143.0 billion yen due to an increase in non-current assets resulting from the Fukuoka-Miyako Mega Solar power plant becoming a consolidated subsidiary and an increase in construction in progress for the construction of Imari Biomass Power Plant, which was mainly covered by an increase in long-term borrowings. Going forward, as stated in TESS Holdings’ Medium-term Management Plan, the company is expected to invest in growth and focus management resources on transforming its business structure.

Full-year Financial Forecast for the Current Fiscal Year Ending June 30, 2025

TESS Holdings' full-year forecasts remain unchanged, with net sales and operating profit up, but ordinary profit down 94.8% to 400 million yen and profit down 41% to 700 million yen, due to the impact of approximately 1.8 billion yen in losses on valuation of derivatives. As for dividends, the company expects to pay a dividend of 7.66 yen per share, a decrease of 8.34 yen per share, since gains/losses on valuation of derivatives do not affect cash flow, and the company deducts this effect from the dividend under its dividend policy.

The loss on valuation of derivatives will be discussed later, but it is related to a long-term contract for imported fuel for the biomass power generation business, a contract that will be absorbed as the business progresses. While this is in principle a correct accounting treatment under the current market value accounting rules, the fact that it is a valuation loss that has no impact on the business itself should be taken into consideration from the investor side. The accounting treatment for long-term foreign exchange contracts has been applied to hedge accounting from the interim consolidated accounting period ending June 30, 2025. As a result, long-term foreign exchange forward contracts will no longer affect fiscal period profit/loss in the future.

FAQs from Meetings with Investors

About TESS Holdings in General

Q1: What are the company's strengths in terms of business performance and business model?

The TESS Group was established in 1979 to contribute to society through energy conservation projects in the wake of the oil crisis. Since its establishment, the company has made numerous proposals that contribute to energy conservation and cost reductions tailored to customers' circumstances, mainly at energy-intensive factories, including those of major Japanese companies and well-known corporations. Our strength lies in our ability to provide proposals backed by extensive technologies and expertise.

TESS Group's business is broadly divided into the Engineering Segment and the Energy Supply Segment. In the Engineering Segment, the group is engaged in EPC contracting for energy conservation and renewable energy facilities. In development-type EPC, our Group develops projects from scratch, conducts the buying and selling of rights, and provides EPC services. In the Energy Supply Segment, we are engaged in power generation using renewable energy power generation facilities owned by our Group, operation and maintenance of facilities delivered by our Group to customers, electricity retailing, and biomass fuel business. Our flow- and stock-type business circular model is characterized by building a solid customer base in the Engineering Segment, linking it to the Energy Supply Segment, including O&M, and then to the Engineering Segment, such as the replacement of facilities.

Q2: Current and future business environment

The Sixth Basic Energy Plan, approved by the Cabinet in October 2021, calls for a thorough pursuit of energy conservation to achieve carbon neutrality by 2050, as well as the goal of increasing the share of renewable energy in the domestic power supply mix to 36-38% by 2030. We believe that the market surrounding decarbonization will further expand.

In fact, the decarbonization needs of energy-intensive companies in Japan remain strong, and inquiries continue to outpace our resources. We recognize that expectations for the renewable energy sector will increase further in the future, as we anticipate further increases in power demand due to the construction of new data centers and semiconductor factories.

In addition, while the introduction of renewable energy is progressing, output restrictions for renewable energy power plants are becoming a societal issue. For the stable supply of electricity, storage batteries that can be flexibly recharged and discharged in response to fluctuations in the output of renewable energy are becoming increasingly important.

Our Group also provides one-stop services (from the development and securing of project sites to the engineering, procurement, construction, operation and maintenance, and operation and management (aggregation) of power

storage plants, including power storage plants for power grids, FIP conversion co-location storage batteries, and on-site storage batteries), utilizing the technical capabilities cultivated in the Engineering Segment and expertise acquired through the development of solar power plants using the FIT system. We are positioning our one-stop services as an important focus for the future.

About the Engineering Segment

Q3: How long does it take from order receipt to completion? Also, what are the bottlenecks in segment scale and what measures are you taking?

From order receipt to completion of construction:

For co-generation systems and biomass power generation systems, typically one to two years. For solar power generation facilities, six months to one year. For grid storage batteries, about one to two years. However, it may be longer depending on the construction period on the grid side.

Bottlenecks in business scale expansion and their countermeasures:

Under the Construction Business Act of Japan, prime contractors are required to assign qualified personnel (construction supervision engineers) to each construction site, and the number of such qualified personnel may present a bottleneck. In addition to strengthening the hiring of new graduates and career hires, we are also focusing on human resource development for the acquisition of qualifications. Note that when our company is the power generation company, we do not need to assign qualified personnel at the time of facility construction because we place the order for the construction work as the client.

Q4: Who are your main customers today and who are your target customers for future business expansion?

The current main customers for commissioned energy conservation EPC are and will remain energy-intensive factories and large commercial facilities in Japan. In the area of commissioned renewable energy EPC, the main customers are energy-intensive factories and large-scale commercial facilities in Japan. In terms of large-scale commercial facilities, the introduction of rooftop solar power generation facilities is advancing particularly for large-scale logistics warehouses.

In addition, since grid storage batteries are directly connected to the power grid and are not affected by the amount of electricity used, its EPC customer base is diverse, and so we are focusing on power storage business for infrastructure, financial, and other types of companies.

Q5: Is there any change in the profitability of storage battery EPC compared to solar EPC?

As the ratio of equipment costs to EPC costs increases, the group's profit margin tends to decrease. However, storage battery EPC tends to have a higher ratio of equipment costs than solar EPC, and so storage battery EPC is

not any more profitable than solar EPC. On the other hand, storage battery EPCs are often large-scale projects with order amounts in the billions of yen, and the amount of profit on sales per project tends to be higher for storage batteries.

About the Energy Supply Segment

Q6: What are the bottlenecks in this segment and what measures are you taking?

The Energy Supply Segment consists of four business areas.

In the renewable energy power generation business, it is difficult to improve the sales side of the business because the unit price of electricity sold is fixed under Japan's FIT system, and it is necessary to maintain profitability through proper maintenance and management. In addition, theft of power cables has become a social problem in recent years, and the group is implementing anti-theft measures to avoid suffering theft. Furthermore, with regard to the decrease in income from electricity sales due to output restrictions and other measures that are expected to occur in the service area of Kyushu Electric Power Company, we will strive to secure premium revenue by converting to FIP and installing co-location storage batteries.

O&M is mainly the "Operation and Maintenance" of facilities ordered by the Engineering Segment, and while we expect to receive revenue from periodic inspections and maintenance as well as from handling unexpected problems, there may be differences from our projections. In addition, O&M for co-generation and power storage plants leaves little room for revenue growth, and so we intend to compensate for this by growing other businesses.

In the electricity retail business, the amount of relative power sources secured is small and depends on market procurement. Therefore, we are marketing a market-linked plan to reduce market risk in power procurement and expand our business, and our target customers are limited to companies that will benefit from the plan and companies that understand the market-linked plan. The target customers are limited to companies that will benefit from the plan and companies that understand the market-linked plan. We believe it is important to increase our contacts with customers in order to expand our business.

The resource-recycling biomass fuel business involves the sale of residues (PKS and EFB) from the palm industry in Indonesia as fuel for biomass power plants and other facilities. The bottleneck in this business is securing a stable supply of raw materials, but both PKS and EFB share the same source of raw materials. That is why our Group is expanding its network by expanding relations with local mills (palm oil mills). At present, we have established connections with about 100 mills with whom we have secured two stockyards for procurement, and are working to develop EFB pellets to achieve both quality and cost that will enable commercialization.

About the New Biomass Fuel Business

Q7: Profitability of this business

As mentioned above, we handle PKS and EFB, but PKS is expected to be eliminated as an internal transaction since it will be shipped to the Imari Biomass Power Plant. 200,000 tons per year of PKS for external sales will be secured with the fiscal year ending June 30, 2028 as the target, and external sales will be resumed. As for EFB, it is still in the stage of research and development at the group's local subsidiary and has not yet become profitable.

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Overview and History

Summary

TESS Holdings Co., Ltd. (hereinafter referred to as "TESS Holdings") was established in May 1979 by TESS Engineering Co., Ltd. (currently a consolidated subsidiary; former company name: Hanwa Nessui Ind. Co., Ltd.), and has developed its business mainly through TESS Engineering Co., Ltd. In April 2018, for the purpose of reorganizing the group due to the increase in affiliated companies and improving management efficiency, among other goals, the company shifted to a holding company structure with TESS Holdings as the wholly-owning parent.

TESS Group consists of TESS Holdings as the holding company and 22 consolidated subsidiaries (including silent partnerships) centered on TESS Engineering Inc.

TESS Group's corporate philosophy is "Total Energy Savings & Solutions" for the realization of a sustainable society, and it focuses on the following areas: A shift toward renewable energy as the main power source; Complete energy conservation; and a Transition to intelligent energy. Based on these key areas, TESS Group carries out business through two major segments: (1) The Engineering Segment, which conducts engineering, procurement, and construction (EPC) of energy plants and utility facilities; and (2) The Energy Supply Segment, which conducts renewable energy power plant ownership, operation, power sales, operation, and maintenance (O&M), electricity retailing and supply, and resource-recycling biomass fuel. Since its founding, the company group has leveraged its independent status to provide comprehensive solutions to address the environmental, energy conservation, and energy cost issues faced by a wide range of customers in the industrial sector.

The company is well known as an EPC company for co-generation systems, focusing on the effective utilization of waste heat from utility facilities and equipment that are essential for production plants in various industries. Over the past 10 years or so, the company's business has been expanding in line with the policy guidance aimed at shifting Japan's power supply mix to renewable energy sources, particularly investment in solar power generation facilities utilizing Japan's Feed-in Tariff (FIT) system (Feed-in Tariff Scheme for Renewable Energy). The company has shifted its business focus to renewable energy power generation through the EPC of solar power generation facilities and the operation of solar power generation facilities (generally referred to as mega-solar facilities) through its own investments.

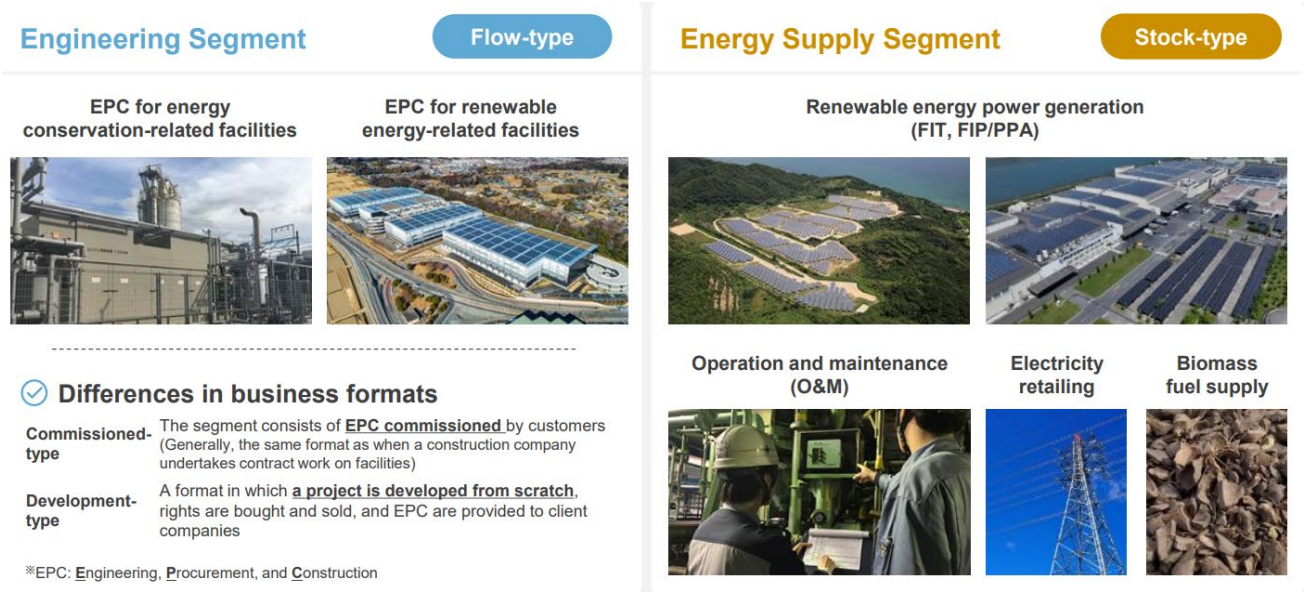
The core competitiveness that TESS Holdings has cultivated lies in its ability to provide EPC services for energy-related facilities, which are comprehensive services that encompass plant design, procurement of land and equipment, and construction management of facilities. The company's recently expanded business of EPC for solar power generation facilities and the ownership, operation, and sale of electricity from renewable energy power plants, centered on solar power generation facilities through its own investments, are examples of how this core technology is being applied to the renewable energy field. The company has also focused on palm kernel shells (PKS) and empty

fruit bunches of palm (EFB), which are residues produced in the process of palm oil production, as fuels for biomass power plants, and established a local subsidiary in Indonesia in 2018 to begin R&D for the production of EFB pellets. TESS Holdings began handling PKS in 2020. With the growing need for more sustainable fuels, the company plans to expand its network of local palm oil mills for the procurement of PKS and significantly increase its sales volume. In addition, research and development is continuing to commercialize EFB pellets, which have been successfully converted to fuel, and these biomass fuels are positioned as a key business area in the company's Medium-term Management Plan.

Business

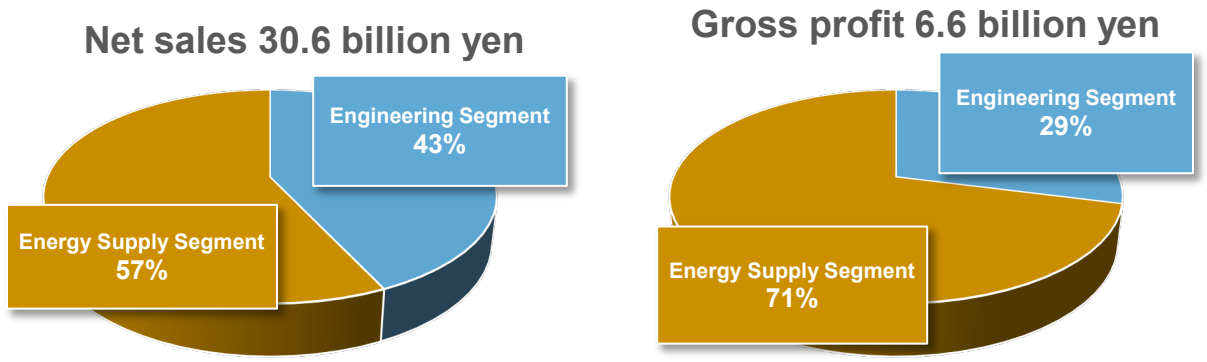
TESS Group operates through its Engineering Segment, which is a flow-type business that receives orders on a case-by-case basis, and Energy Supply Segment, which is a stock-type business based on steady streams of income. The two segments are interconnected to provide customers with one-stop solutions in the energy field. In the previous fiscal year, approximately 60% of sales and 70% of gross profit came from the stock-type Energy Supply Segment.

Figure 1: Overview of TESS Holdings' Business



Source: TESS Holdings' IR materials

Figure 2: Breakdown of sales and gross profit by business segment for the previous fiscal year ended June 30, 2024



Source: Prepared by Global IR, Inc. based on financial data

(1) Engineering Segment

The Engineering Segment provides EPC services for energy plants and utility facilities, and its two main business areas are energy conservation and renewable energy. Within TESS Group, TESS Engineering Co., Ltd. provides EPC services for co-generation systems, solar power generation systems, and utility facilities, while Kyoritsu Engineering Co., Ltd. provides EPC services for utility facilities.

Energy conservation facilities:

For customers seeking to reduce energy consumption and energy costs, and realize environmental measures, TESS Holdings conducts energy conservation assessments of factories and offices to identify their energy-related issues and needs and then proposes energy conservation facilities such as co-generation systems, fuel conversion facilities, and various utility facilities. The company then receives EPC orders based on these proposals. Since its establishment, TESS Group has accumulated expertise in a wide range of EPC projects, from large-scale factories to small-scale facilities, which is the source of its technological competitiveness in this business.

Renewable energy facilities:

Facilities that generate electricity from renewable energy sources (solar, biomass, etc.) are known as renewable energy facilities. TESS Holdings provides engineering services related to power generation facilities for in-house consumption for power generation applications and industrial customers who intend to take advantage of Japan's FIT system (Feed-in Tariff Scheme for Renewable Energy) and FIP (feed-in-premium) system (a framework whereby electricity is sold at a price that adds a premium to the revenue from the sale of electricity under certain conditions). The company also provides engineering services for power storage systems for charging and discharging power generated by renewable energy facilities and for stabilizing power grids.

Engineering Segment business formats:
The Engineering Segment operates two business formats: commissioned-type and development-type.

Commissioned-type:
This is a form of EPC commissioned from the client, including engineering to meet the client's needs for energy conservation, cost reduction, and environmental measures for energy conservation facilities, and engineering for certain renewable energy facilities, such as power generation facilities and in-house power generation facilities utilizing FIT certification obtained by the client.

Development-type:
TESS Group is actively involved in the acquisition (or lease) of land, permits and rights, EPC, and other such processes, and provides a series of development-related solutions to clients.

In addition to providing development solutions to specific clients within this business format, TESS Group also offers investment schemes to multiple clients, including the formation of silent partnerships and project financing. TESS Group also develops renewable energy power plants owned by the group.

(2) Energy Supply Segment

The Energy Supply Segment is based on steady streams of revenue, which it refers to as its stock-type business that provides ownership, operation, and electricity sales of renewable energy power plants, operation and maintenance (O&M), electricity retailing, and resource-recycling biomass fuel business.

Within TESS Group, TESS Engineering Co., Ltd. owns and operates renewable energy power plants, from which it sells electricity. The company also performs operation and maintenance (O&M) of facilities delivered to customers, and electricity retailing. TESS Asset Management LLC provides asset management services, and Prime Solar LLC and other special purpose companies (SPCs) and silent partnerships own, operate, and sell electricity from renewable energy power plants.

(a) Ownership and operation of and sale of electricity from renewable energy power plants
TESS Group owns, operates, and sells electricity from renewable energy power plants, mainly solar power plants, under Japan’s FIT or FIP systems, or under the on-site PPA model (abbreviation for “Power Purchase Agreement,” also referred to as "power sales agreement"), which does not use the FIT or FIP system.

In the operation of each renewable energy power plant, TESS Group leverages the expertise of its group companies to provide one-stop services, including site selection, SPC formation, financing, EPC, O&M, energy management, and asset management, thereby improving profitability.

For the ownership, operation, and sale of electricity from major renewable energy power plants in TESS Group, a project finance scheme using SPCs has been adopted. TESS Group mainly uses an “LLC-SP” scheme, in which the SPC is established as a limited liability company (LLC) under Japan’s Commercial Code and invests in the operator, a limited liability company (LLC).

In developing and owning the power plant, TESS Group will conclude land lease and sale contracts with landowners, obtain permits and approvals from Japan’s Ministry of Economy, Trade and Industry and local governments, and apply for connection contracts with general power transmission and distribution companies. After the establishment of the SPC, which will serve as the project entity, TESS Group makes a silent partnership contribution, and the SPC procures project financing from financial institutions.

For power plant facilities, TESS Engineering Co., Ltd. is responsible for EPC and O&M services related to construction, and TESS Asset Management LLC is responsible for power plant management and operation. For the sale of electricity, SPCs sell the electricity generated to general transmission and distribution companies or retail electricity providers.

History

In May 1979, TESS Group established TESS Engineering Co., Ltd. (currently a consolidated subsidiary; former company name: Hanwa Nessui Ind. Co., Ltd.) and has developed business centered on TESS Engineering Co., Ltd. In April 2018, TESS Holdings was shifted to a holding company structure as the wholly-owning parent company for the purpose of restructuring the group and improving management efficiency due to the increase in the number of affiliated companies.

TESS Engineering Co., Ltd.

May 1979	Hanwa Nessui Ind. Co., Ltd. established in Toyonaka City, Osaka for the purpose of providing engineering and maintenance services for utility facilities (*1) for factories and offices.
Jan 1992	Company name changed to TESS Engineering Co., Ltd.
Nov 1999	24-hour operation monitoring center opened (now the ICT Solutions Center)
July 2000	Acquired environmental management system ISO 14001 certification.
Sep 2002	Launched energy supply services for client companies using co-generation systems.

Feb 2006	Launched operations and maintenance (O&M) total-service business for gas engine co-generation power plants.
Feb 2007	Registered as a trading participant in Japan's Voluntary Emissions Trading Scheme (JVETS) to expand services related to environmental measures.
May 2009	Registered as a Green Power Certificate Issuer to expand services related to environmental measures.
Feb 2010	Filed notification of commencement of Specified-Scale Electricity Business (currently Retail Electricity Business) for the purpose of entering into the electricity retailing.
Mar 2012	Intelligent Solar Systems Co., Ltd. (currently an equity-method affiliate) established to provide maintenance and remote monitoring services for solar power plant monitoring systems.
Oct 2012	Toward strengthening EPC of utility facilities for client companies, Kyoritsu Engineering Co., Ltd. (currently a consolidated subsidiary) and Techno Engineering LLC (dissolved in an absorption-type merger) became subsidiaries through the acquisition of shares.
Jan 2013	Energy and Partners Co., Ltd. (currently a consolidated subsidiary) established with NEC Capital Solutions Limited for the purpose of owning, operating, and selling electricity from solar power plants.
Mar 2013	Prime Solar LLC (currently a consolidated subsidiary) established for the purpose of owning, operating, and selling electricity from solar power plants.
Jun 2013	TESS Tokushima-Anan Solar Power Station began power generation as the first solar power plant owned, operated, and used to sell electricity by the TESS Group.
Jul 2013	Acquired shares of Mie Enewood Co., Ltd. (currently an equity-method affiliate) for the purpose of owning, operating, and selling electricity from biomass power plants.
Apr 2014	TESS Asset Management LLC (currently a consolidated subsidiary) merged with Techno Engineering LLC with an eye to organizational integration for the purpose of providing operation and management services for power plants and other such facilities.
May 2014	Formed a silent partnership with T&M Solar LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.
Dec 2014	Obtained certification for Quality Management System ISO 9001 and Information Security Management System ISO 27001.
Jul 2015	Launched sales of TESS WebView, a web-based energy management system developed in-house to strengthen energy management services.
Oct 2015	Formed a silent partnership with Solar Energy Create LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.

Nov 2015	Registered as a retail electric utility for electricity retailing due to changes in Japan's system toward starting full liberalization of electricity.
Mar 2016	Formed a silent partnership (currently a consolidated subsidiary) with Awaji-Sano Solar Power LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.
Sep 2017	Kirishima-Manzen Geothermal Energy LLC (currently a consolidated subsidiary) established to own, operate, and sell electricity from geothermal power plants.
Oct 2017	Formed a silent partnership (currently a consolidated subsidiary) with Kochi-Muroto Solar Power LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.

TESS Holdings Co., Ltd.

Jul 2009	TESS Techno Service Co., Ltd. (currently TESS Holdings Co., Ltd.) established for various purposes, including to take over the business of the founder.
Apr 2018	Company name changed to TESS Holdings Co., Ltd. Shifted to holding company structure with TESS Holdings Co., Ltd. as the wholly-owning parent company and TESS Engineering Co., Ltd. as a wholly-owned subsidiary through a stock swap with TESS Engineering Co., Ltd
Oct 2018	PT PTEC RESEARCH AND DEVELOPMENT (now a consolidated subsidiary) established for the research and development of biomass fuel production.
Jan 2019	Formed a silent partnership (currently a consolidated subsidiary) with Chiba-Katori Solar Power LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.
Sep 2019	PTEC SINGAPORE PTE. LTD. (currently a consolidated subsidiary) established for the purpose of supplying biomass fuel.
Oct 2019	Formed a silent partnership (currently a consolidated subsidiary) with Ibaraki-Ushiku Solar Power LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.
Dec 2019	Formed a silent partnership (currently a consolidated subsidiary) with Prime Solar 2 LLC as the operator for the purpose of owning, operating, and selling electricity from solar power plants.
Mar 2020	Acquired PT INTERNATIONAL GREENENERGY (currently a consolidated subsidiary) as a subsidiary through stock acquisition for the purpose of supplying biomass fuel. Acquired INTERNATIONAL GREENENERGY PTE. LTD. (dissolved by absorption-type merger) as a subsidiary through the acquisition of shares for the purpose of supplying biomass fuel.
Aug 2020	VT Utilities Services K.K. (currently an equity-method affiliate) established as a joint venture with Veolia Japan K.K. to provide utility management services in the water, waste, and energy fields.
Sep 2020	Established Prime Solar 3 LLC (currently a consolidated subsidiary) for the purpose of owning, operating, and selling electricity from solar power plants

Apr 2021	Listed on the First Section of the Tokyo Stock Exchange.
Jun 2021	Kumamoto Nishiki Green Power LLC (currently a consolidated subsidiary) established for the purpose of owning, operating, and selling electricity from biomass power plants.
Sep 2021	Imari Green Power Co., Ltd. (currently a consolidated subsidiary) became a subsidiary through the acquisition of shares for the purpose of owning, operating, and selling electricity from biomass power plants.
Jan 2022	Acquired shares of TOLLCUX INVESTMENTS LIMITED (currently an equity-method affiliate) for the purpose of participating in the power storage business for power grids in the U.K.
Apr 2022	Moved from the First Section to the Prime Market due to the revision of the market classification of the Tokyo Stock Exchange.
Jul 2022	Established the ESG Promotion Committee to promote initiatives such as climate change risk countermeasures and human resources diversity.
Aug 2022	Acquired the entire share of T&M Solar LLC (currently a consolidated subsidiary), making it a subsidiary, for the purpose of owning, operating, and selling electricity from solar power plants. Acquired the entire share of Solar Energy Create LLC (currently a consolidated subsidiary), making it a subsidiary, for the purpose of owning, operating, and selling electricity from solar power plants.
Jan 2023	Established Gunma Tanigawadake Hydropower LLC (currently a consolidated subsidiary) with the purpose of developing hydroelectric power plants.
Apr 2024	Completed a merger in Singapore with INTERNATIONAL GREENENERGY PTE. LTD. absorbed by the surviving company PTEC SINGAPORE PTE. LTD.

Figure 3: Consolidated Results

Accounting period	FY06/2022	FY06/2023	FY06/2024						FY06/2025	
	Q1-Q4	Q1-Q4	Q1	Q2	H1	Q3	Q4	Q1-Q4	Q1	Q2
Net sales	34,945	34,415	6,221	8,847	15,068	7,790	7,785	30,643	8,308	9,705
YoY	2.0%	-1.5%	-25.3%	6.8%	-9.3%	4.7%	-24.9%	-11.0%	33.5%	9.7%
Gross profit	8,455	10,611	1,733	2,035	3,768	1,283	1,502	6,553	2,103	2,627
YoY	12.1%	25.5%	-29.7%	-9.6%	-20.1%	-42.4%	-59.1%	-38.2%	21.4%	29.1%
Gross profit margin	24.2%	30.8%	27.9%	23.0%	25.0%	16.5%	19.3%	21.4%	25.3%	27.1%
Selling, general, and administrative expenses	3,309	3,746	1,019	1,073	2,092	886	1,205	4,183	1,159	1,162
YoY	5.3%	13.2%	8.5%	25.6%	16.7%	-0.7%	13.5%	11.7%	13.7%	8.3%
Operating profit	5,146	6,864	714	962	1,676	397	297	2,370	944	1,465
YoY	17.0%	33.4%	-53.2%	-31.1%	-42.7%	-70.2%	-88.6%	-65.5%	32.2%	52.3%
Operating profit margin	14.7%	19.9%	11.5%	10.9%	11.1%	5.1%	3.8%	7.7%	11.4%	15.1%
Ordinary profit	4,654	5,518	498	960	1,458	2,313	3,889	7,660	757	-517
YoY	21.3%	18.6%	-65.7%	-8.4%	-41.7%	102.0%	107.7%	38.8%	52.0%	deficit
Profit	2,759	3,794	283	582	865	1,533	(1,072)	1,326	684	(87)
YoY	34.1%	37.5%	-68.7%	-11.1%	-44.6%	99.9%	-173.1%	-65.1%	141.7%	deficit
Profit margin	7.9%	11.0%	4.5%	6.6%	5.7%	19.7%	-13.8%	4.3%	8.2%	-0.9%

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. *Calculated by Global IR, Inc.

Japan's Renewable Energy Policy and Market Outlook

Japan's energy policy is led by the Japanese government through subsidies and other incentives based on international cooperation, such as COP28. Over the past decade, investment in carbon-free renewable energy has been promoted. It remains to be seen whether the Trump administration will make any changes to the U.S. energy policy, and what the timing and degree of impact will be on Japan.

Policy Background and Objectives

The Japanese government's view is that Japan has a low energy self-sufficiency rate and is heavily dependent on fossil fuels, making the introduction of renewable energy sources an urgent priority. Since the shutdown of the Fukushima nuclear power plant following the Great East Japan Earthquake, it has been difficult to restart nuclear power generation in Japan, and nearly 80% of Japan's energy is still provided by fossil fuels such as coal and natural gas. To overcome this situation, the government is accelerating the introduction of renewable energy.

The goal of Japan's renewable energy policy is to address environmental issues and increase energy self-sufficiency. In particular, an ambitious goal of a 46% reduction in greenhouse gas emissions by FY2030 has been set. To achieve this goal, it is necessary to increase the share of renewable energy sources to a range of 36% to 38% of the total power supply.

In addition, Japan's renewable energy policy is based on the “S+3E” framework. This framework emphasizes “Safety,” “Energy Security,” “Economic Efficiency,” and “Environment,” and aims for sustainable energy supplies. In particular, it calls for the maximum introduction of renewable energy as the main source of power by 2050.

As part of its international efforts, Japan aims to reduce greenhouse gas emissions in accordance with the Paris Agreement. In particular, at the recent COP28, specific targets were set to triple renewable energy generation capacity and double the rate of energy efficiency improvements. As a result, Japan is expected to accelerate the introduction of renewable energy within the framework of international energy policy. However, U.S. President Trump, re-elected for his second term, which started in 2025, is known to be skeptical about climate change caused by greenhouse gases, and it is said that the U.S. will withdraw from the Paris Agreement. How this move will affect global energy-related public opinion, and by extension, Japan's energy policy, will require close attention.

Current Status of Renewable Energy

Japan’s FIT (Feed-in Tariff) system introduced in 2012 brought about significant changes in the renewable energy market in Japan. This system has led to rapid progress in the introduction of renewable energies, with the share of renewable energy generated increasing from 10% in FY2011 to 26% in FY2023. In particular, approximately 78% of new installations that began operation as of the end of December 2023 were under the FIT system, with solar power generation accounting for 88% of this total. However, the cost increase for power companies due to the FIT

system is widely collected from consumers in the form of renewable energy surcharges and other similar fees. However, it is undeniable that the increase in electricity fees is placing a heavy burden on general households in Japan, due in part to rising fuel costs from the weak yen and sluggish household income growth from the continuing economic slowdown. If energy policy is reviewed under the Trump administration, it is highly likely that similar discussions will be promoted in Japan as well.

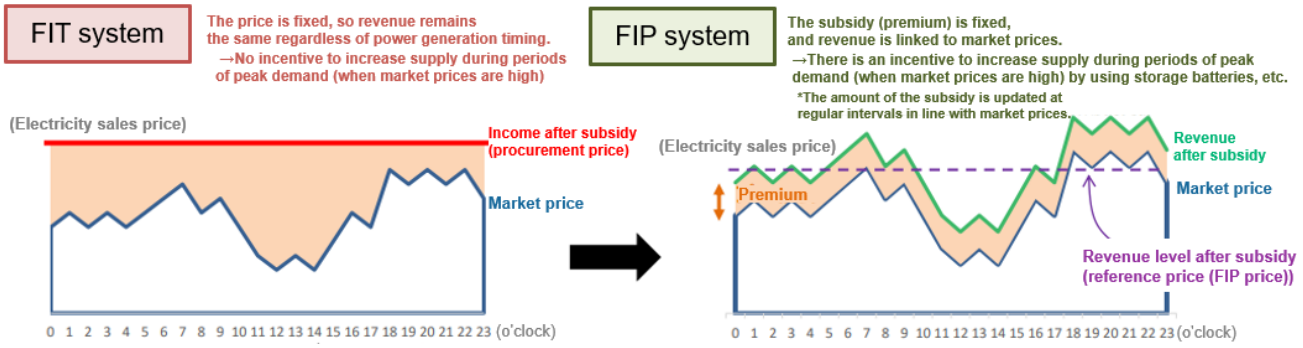
As of the end of FY2023, the cumulative amount of solar power generation facilities installed reached approximately 73 million kW, but the annual amount installed decreased to approximately 2 million kW. In contrast, wind power generation exceeded 1 million kW per year for the first time, reaching a cumulative total of about 6 million kW. Thus, while solar power generation remains the mainstay of the market, the introduction of solar power generation facilities is believed to have already peaked. At the same time, the efficient operation of solar power generation facilities has become an issue in areas such as the Kyushu region, which has an excellent sunlight environment, as output is restricted during times when power generation by solar power generation facilities exceeds demand. Currently, as a promising solution to this situation, projects related to the efficient operation of installed solar power generation facilities are making significant progress through FIP conversion + storage battery installation.

Overview of the FIP System and Market Expansion of EPC for Storage Batteries

The FIP system is an abbreviation for “Feed-in Premium,” a system under which a premium is granted for supplying renewable energy linked to the market price. Where the FIT system guarantees the purchase of renewable energy at a fixed price, the FIP system fluctuates according to the market price. The Japanese government introduced the FIP system in 2022 with the aim of raising the share of renewable energy to a range of 36% to 38% by FY2030, making renewable energy the main source of power, and improving the supply-demand balance in the electricity market.

As shown in Figure 4, solar power generation facilities without output adjustment mechanisms under the FIT system sell the electricity they generate at a fixed price, regardless of fluctuations in market prices, and feed it into the power grid. On the other hand, by switching to a FIP system with a co-location storage battery, it becomes possible to charge the storage battery when market prices are low (when demand is low) and supply electricity during periods of high demand. Although installing co-location storage batteries requires a large initial investment, it is possible to maximize revenue from the sale of electricity by installing co-location storage batteries, so the number of FIT solar power generation facilities undergoing FIP conversion to solar power generation facilities with co-location storage batteries is increasing. The EPC business for introducing storage batteries for FIP conversion systems is positioned as one of the growth drivers in TESS Holdings’ Medium-term Management Plan and is expected to contribute to earnings.

Figure 4: Illustration of the Purchase Prices Under the FIT and FIP Systems

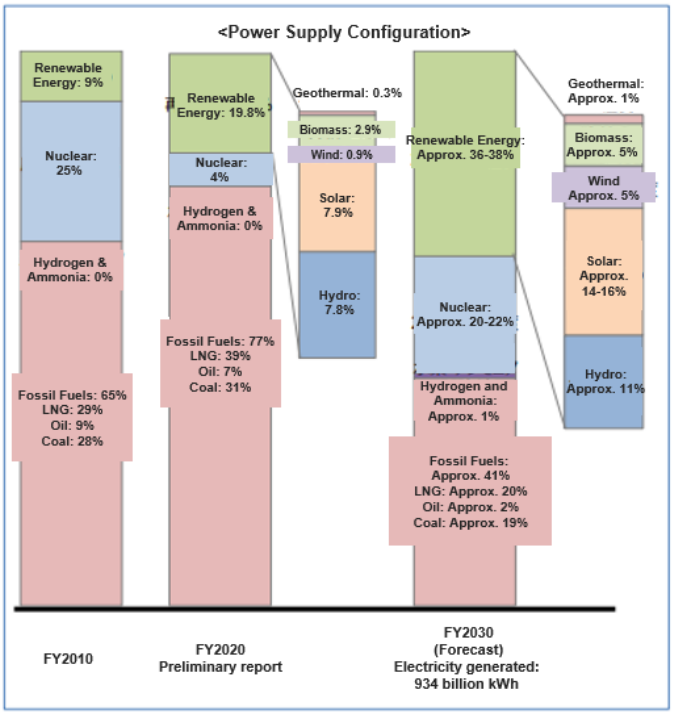


Source: Detailed Design of FIP System and Further Activation of Aggregation Business, Agency for Natural Resources and Energy

Energy Mix Targets for 2030

The Japanese government aims to increase the share of renewable energy to a range of 36% to 38% by FY2030. This goal is an important step toward ensuring a sustainable energy supply and reducing greenhouse gas emissions. Specifically, the plan includes a breakdown of 14%–16% solar power, 5% wind power, 1% geothermal, 11% hydroelectric, and 5% biomass. This is also expected to increase energy self-sufficiency to about 30%.

Figure 5: Japan's Overall 2030 Power Supply Composition Targets



(GW)	Import level (September 2021)	Amount introduced before FIT + amount approved for FIT (September 2021)	Mix (FY2030)	Progress rate of introduction for mix (Approximate)
Solar	63.8	81.6	103.5～117.6	58%
Wind Top number: on land Bottom number: at sea	4.6 –	15.3 0.7	17.9 5.7	19%
Geo thermal	0.7	0.7	1.5	41%
Small and medium-sized hydropower	9.8	10.0	10.4	94%
Biomass	5.3	10.3	8.0	66%

*The output of biomass is calculated after taking into account the biomass ratio.
*The expired portion (as of September 2021) under the revised FIT Act has been reflected.
*The "progress rate of introduction for the mix" for solar power is the progress of the amount of introduction compared to the median of the value shown in the mix.

Source: Future Renewable Energy Policy, Agency for Natural Resources and Energy

Policy Issues and Improvement Measures

To overcome these challenges, the Japanese government is working to streamline regulations and strengthen its power grids. Specifically, it is formulating policies to promote the introduction of renewable energy and supporting technology development and large-scale demonstrations. This is expected to reduce costs and provide a more efficient energy supply and is aimed at increasing the adoption of renewable energy.

The status of renewable energy introduction varies greatly from region to region. In many cases, solar power generation is widespread in urban areas, while its introduction is not progressing in rural areas. In order to eliminate this disparity between regions, policies to promote equal deployment are needed. In particular, cooperation with local governments must be strengthened to promote the introduction of renewable energy in accordance with regional characteristics.

Comparison with Competitors

While there are a number of listed Japanese companies in the same industry that similarly handle business related to renewable energy, TESS Holdings is able to develop diverse business strategies in terms of service offerings, types of renewable energy, business models, target users, and so on. That means that in reality, there is a mix of companies in the same industry that are difficult to categorize as being in the same sector. West Holdings seems to have the most similar business domain and business model, but TESS Holdings has been investing more in its stock-type businesses. We believe it is important to understand the positioning of each company, as differences in business models and target users may result in vastly different levels of growth potential and business risk.

Business Comparison

Figure 6 compares TESS Holdings' business segments with those of Japanese renewable energy companies. The major difference from an investment perspective is that the EPC business is a contracted construction business, which allows for a relatively slim balance sheet, while the power generation business, which is a stock business involving company-owned power generation facilities, requires a large investment in its own assets and facilities. Note that while the EPC business is asset-light, it is important to secure human resources, especially engineers for the engineering function. If stable orders and inspections for EPC projects are not carried out, the burden of personnel costs can put pressure on profit and loss, which is a common problem for engineering companies. Therefore, it is important to balance flow and stock business in order to achieve stable periodic profit/loss and growth.

Figure 6: Comparison Between TESS Holdings and Japanese Renewable Energy Companies

	Energy Conservation EPC (flow)	Renewable Energy EPC (Flow)	O&M (stock)	Power generation (stock)	Electricity retailing (stock)
TESS	○ Co-generation systems for large-scale, energy-intensive factories, LNG satellites, utility facilities	○ Solar power generation Biomass power generation On-site power storage facilities Grid power storage facilities FIP co-location power storage facilities	○ Solar power generation Biomass power generation Co-generation system 24-hour monitoring energy-management services	○ Solar power (FIT, FIP, PPA) Biomass power generation (Japanese domestic wood, imported wood)	○ Own supply and demand management and agricultural functions
RENOVA				○ PPA: Focus on off-site PPA	
West Holdings	○ Lighting and air conditioning work mainly for stores and buildings	○	○	○ PPA: Focus on off-site PPA	
erex				○	○
Renewable Japan		△ Mainly repairs as part of O&M	○	○ Experience with both on-site and off-site PPA	
gremz	○ Lighting and air conditioning work mainly for stores and buildings	○		○ PPA: Focus on on-site PPA (mainly for residential use)	○

Source: Prepared by Global IR, Inc.

Power Generation: Mega Solar Business

Mega solar facilities utilizing Japan's FIT system have been installed throughout Japan over the past decade or so. Some of the facilities have been criticized for cutting through forests that absorb carbon dioxide to install solar power generation facilities and causing mudslides during heavy rains. However, as mentioned above, investment is believed to have peaked. TESS Holdings also operates a total of about 60 mega solar power plants through 12 consolidated subsidiaries under the FIT system and appears to be verifying the balance with the flow business of EPC. RENOVA is the main driver of this business, which requires larger assets relative to the size of its business compared to its competitors. Because deals signed through Japan's feed-in-tariff (FIT) system set a fixed purchase price over the long term, the company's long-term sales forecast is largely set, and as long as the company does not misjudge operating costs, such as repair costs, a certain level of revenue is assured. In addition, an increasing number of mega solar facilities are converting to FIP by investing in additional power storage facilities, and in fact, some of the company's FIT facilities are also converting to FIP by introducing power storage facilities. This trend represents a major business opportunity in the EPC business, but from the perspective of the stock power generation business, it is a trend that will further increase assets, so this point requires close attention.

Furthermore, in the case of TESS Holdings, it is pursuing business in biomass power generation to expand its portfolio of power generation methods in this business area, with RENOVA and erex leading the way in the industry. Biomass power generation can be done in several ways, depending on the fuel source. Some use Japanese domestic forest resources (thinned wood, general lumber, lumber offcuts, etc.), while others import wood pellets or PKS from overseas. Generally, power plants that use domestic forest resources are in the small- to medium-scale class with a power output of 2 MW to 10 MW, mainly in fuel-producing areas, and represent business for the local production and consumption of renewable energy power. On the other hand, power plants that import fuel from overseas tend to be large-scale, ranging from 20 MW to 75 MW, mainly in port areas.

The 46 MW biomass power generation project being carried out by TESS Holdings in Imari City, Saga Prefecture, Japan, will use PKS imported from Indonesia. Since fuel procurement is an important factor for the success of the project, TESS Holdings' group companies have entered into multiple agreements with Indonesian palm plantations (about 100) for off-take residues. They have also entered into long-term foreign exchange contracts totaling US$519 million (as of December 31, 2024) to mitigate business risks. The large gain on derivatives in the previous year and the loss on derivatives in the first quarter of this fiscal year were associated with this transaction, and it is somewhat unfortunate that the gains and losses from this valuation swung the financial results up and down since the forward exchange contracts are executed as an actual business rather than an investment once the business is underway. However, it is true that this is a risk when adjusted to current market value accounting standards and should be considered when investing in TESS Holdings' stock. Of course, the impact of this valuation gain/loss can be taken into account when valuations are based on cash flow, such as EBITDA, since it does not affect cash flow.

As mentioned above, the source of competitiveness in the power generation business is not only technological capabilities but also the ability to raise funds, since large investments are required. From this perspective, TESS Holdings is at a disadvantage when competing against large companies with ample capital. In the case of TESS Holdings, it basically proceeds with large investment projects by borrowing from financial institutions through project finance. However, in the previous fiscal year, the company raised a large amount of capital from the capital markets through a rights offering to secure funds for its operations and strengthen its capital stability, but it cannot be denied that this was a reactionary measure that contributed to the slump in its stock price. Tokyo Century Corporation, a major Japanese leasing company affiliated with ITOCHU Corporation, announced in December 2024 a strategy that can be evaluated from this perspective as well. The shares held by Mr. Ishiwaki, the founder and largest shareholder, and Mr. Fujii, the major shareholder, will be sold and transferred to Tokyo Century Corporation, and no new shares will be issued. Following the transfer, Mr. Ishiwaki holds a 6.80% interest as the third-largest shareholder, and Tokyo Century holds a 5.00% interest as the seventh-largest shareholder. Although Tokyo Century is a major leasing company, it has been engaged in the renewable energy power generation business as part of its environmental infrastructure business through its own investment and was also a client of TESS Holdings in the EPC business. After entering into the capital and business alliance, the two companies expect to gain access to Tokyo Century's broad customer base and improve their ability to raise funds through joint projects.

Power Generation: PPA Business

PPA is a business in which a third-party power generation company owns facilities such as solar power generation facilities on the customer's roof or land (mainly the roof of the customer's factory or land owned off-site by the customer) and sells electricity in accordance with a contract. For companies seeking to cut costs amid soaring electricity prices, PPA is a way to reduce electricity costs with virtually no capital investment on the part of the client, and demand is expected to increase in the future. Many companies in the PPA business, including TESS Holdings, are mainly offering PPA to large factories of large companies to win projects, but gremz is unique in that it offers PPA to small and medium-sized factories of small and medium-sized companies, thus developing a relatively low-competition business in the same market.

Electricity Retail Business

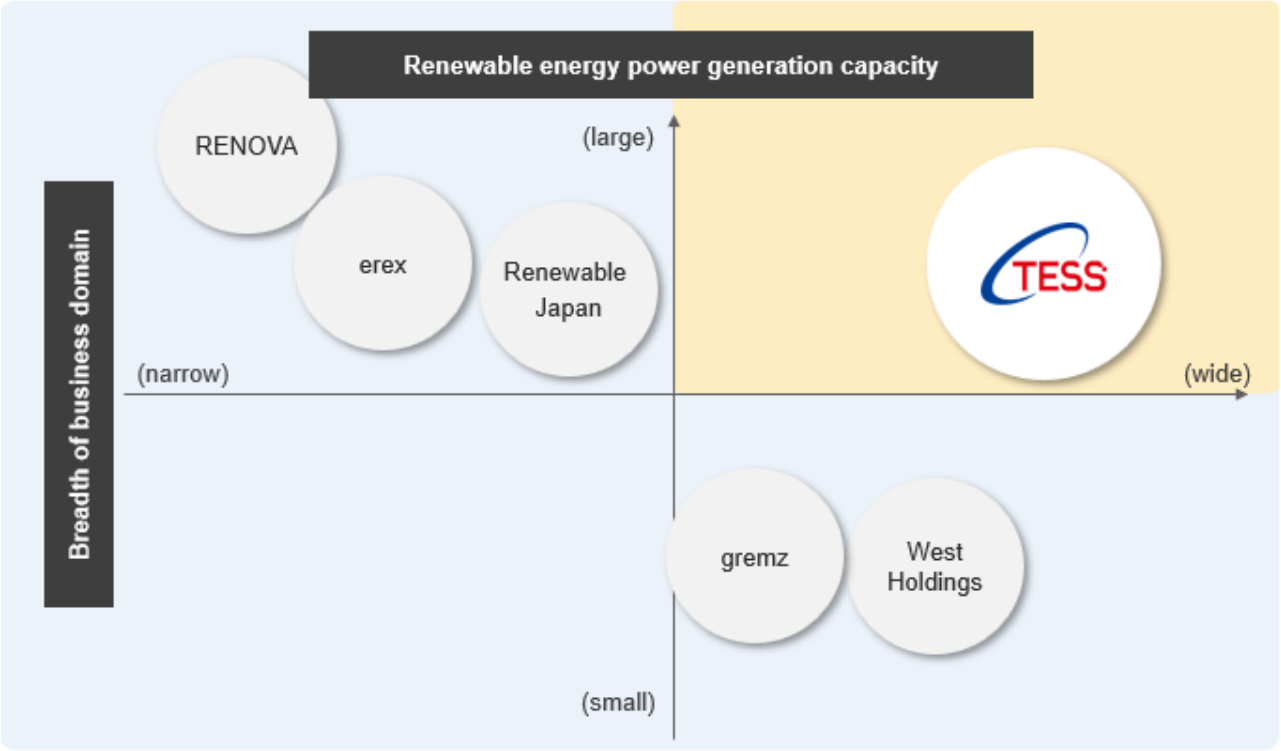
TESS Holdings is also engaged in B-to-B retailing of electricity to general business customers, with TESS Engineering, as mentioned above, obtaining certification as a retail electric utility. Of the competitors, only erex and gremz are engaged in retailing, while West Holdings, which has a relatively similar business domain, does not engage in retailing as a business. Even when retailing to a limited number of users, unless the company can leverage demand response (the owner of energy resources on the customer side or a third party changes the electricity demand pattern by controlling those energy resources) or VPP technology (virtual power plant technology uses IoT technology to remotely integrate and control distributed energy resources and adjust the supply-demand balance of electricity by making them function like a single power plant) and make proposals that benefit its customers, it will not be viable

as a business. This illustrates another aspect of the technological base of TESS Holdings when compared to the competition. In addition, procurement of power sources is important in the retail electricity business, and TESS Holdings mainly procures power from the Japan Electric Power Exchange (JEPX) on a spot basis. Since spot market prices fluctuate greatly depending on the supply-demand balance, the company aims to expand its business by offering customers a market-linked menu in which electricity prices are linked to spot market prices, thereby minimizing the risk of fluctuations in electricity procurement costs.

Operation & Maintenance (O&M) Business

In this business, the client generally does not have the knowledge and expertise of operation and maintenance of the facilities for which it has commissioned EPC services, so the client often orders a set of services in order to achieve long-term stable operation. Competitors West Holdings and Renewable Japan, which provide EPC services, also provide this service. This service is effective for expanding the scale of business and continuing relationships with customers, who can also aim to acquire stock business through flow business.

Figure 7: Positioning of TESS Holdings and Japanese Renewable Energy-related Companies



Source: Prepared by Global IR, Inc.

EPC Business

As mentioned above, the EPC business is positioned as a general contractor (prime contractor) in plant construction, undertaking engineering, equipment procurement, and construction process management in a single package. Competitors West Holdings and gremz own and operate EPC capabilities, while RENOVA and erex, which are superior in scale, do not have this function. In other words, the latter's business model is to raise funds without expertise in facility construction and to rely on its expertise in facility operation as its lifeline, while the former, which includes TESS Holdings, employs a business model in which it invests in renewable energy-related businesses while possessing a series of capabilities in facility construction. Although it is not possible to judge whether a company is better or worse off based on this fact alone, the former is considered to be more responsive to change when the market environment is in flux or at a changing point.

To digress a bit on topics in the environmental field, we feel that public opinion on EVs (electric vehicles) has changed dramatically in the past six months to a year. Business trends are created intentionally, so many companies were in the EV business with a sense of going with the flow, and there were probably people who happily enjoyed EVs, starting with sensitive buyers who love new things. However, many people involved feel that the market was guided too much by policy, not only in China but also in other countries, mainly through subsidies. In terms of cost and CO_2 life cycle assessment, EVs will need to travel several hundred thousand kilometers before they gain an advantage over reciprocal engine vehicles (also known as “piston engine vehicles”). By that time, the batteries, which are the most expensive component to manufacture, will likely need to be replaced. Given this cycle, it is often viewed as unlikely for EVs to ever surpass reciprocating engine vehicles. In fact, this argument has been raised by several major OEMs over the last decade. Also, it has been known for more than a decade that the unavoidable costs and CO_2 emissions associated with the energy needed in the transportation of raw materials and semi-finished products during battery production due to the uneven regional distribution of battery raw materials cannot be changed in the foreseeable future.

We will leave the discussion of why public opinion has flipped so far against EVs for another time, but this is a good example of the dangers of a policy-driven market with subsidies. It would not be an exaggeration to say that the current situation in the automotive market is one of concern for the performance trends of almost all companies except Toyota Motor Corporation, which has little bias in terms of region or technology (Toyota Motor Corporation, too, will inevitably be impacted if protectionist moves under the Trump administration intensify). There is probably more than one reason for Toyota Motor Corporation's dominance, but one of the major factors has been its broad technological base and its ability to respond to changes in the market environment. It is important to point out here that when the business environment changes, the wider the technological base and the wider the business domain, the greater the ability to respond to changes and the stronger the possibility of lowering business risks.

Management Indicator Comparison

Figure 8: Management Indicators (Millions of yen, %)

Code	Company name	Net sales	Ordinary profit	Current profit	EBITDA	Total assets	Equity capital	Net cash	EBITDA to total assets	5-year sales growth	5-year EBITDA growth
5074	TESS Holdings Co., Ltd.	30,643	7,660	1,185	5,601	119,128	41,513	(44,199)	4.7%	3.4%	54.7%
9519	RENOVA, Inc.	44,748	11,864	8,857	16,712	465,399	68,005	(280,007)	3.6%	217.4%	116.1%
1407	West Holdings Corporation	50,390	9,956	6,757	12,690	125,897	33,231	(47,347)	10.1%	-21.1%	71.2%
9517	erex Co., Ltd	244,977	(18,388)	(22,257)	(16,322)	145,180	47,505	(22,073)	-11.2%	272.2%	-355.7%
9522	Renewable Japan Co., Ltd	33,604	2,028	1,088	11,902	159,105	10,733	(34,922)	7.5%	63.1%	764.3%
3150	gremz, Inc.	29,908	5,268	3,540	5,407	21,612	12,904	7,901	25.0%	146.4%	256.9%

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. Financial figures are for the previous year for each company. Only Renewable Japan's figures are four-year growth rates. Growth rates are not annualized but are five-year growth rates (four years for Renewable Japan only).

TESS Holdings, Renewable Japan, and gremz have sales in the 30 billion yen range, while RENOVA and West Holdings have sales in the 40–50 billion yen range and erex has sales in excess of 240 billion yen. Looking at erex, the company undertakes market procurement and retailing, as well as wholesale trading, and this business composition has a large impact (a major factor in significant losses in the previous fiscal year). In terms of total assets, TESS Holdings, West Holdings, and erex stand in the 120–160 billion yen range. Looking at gremz, which does not own large-scale power generation facilities, the company has total assets of just over 20 billion yen, while RENOVA, which does not have EPC functions and is mainly engaged in power generation, requires assets of just under 500 billion yen. Although they are competitors in renewable energy-related businesses, the size and content of their assets differ greatly based on their business models and strategies.

Investors are interested in how effectively companies utilize their assets to achieve both growth and profitability, and gremz has achieved a high EBITDA growth rate over the past five years with a high EBITDA/total assets ratio, which indicates cash flow asset efficiency. Since PPAs and EPCs targeting small and medium-sized enterprises (SMEs) are its main business, it can be said that gremz has achieved high profitability and asset efficiency, although it has to handle a considerable number of projects in order to expand its scale. In addition, RENOVA's cash flow growth is high due to the contribution of large power generation facilities, but its asset efficiency rate is low. In the case of TESS Holdings, the company is in the process of shifting from an EPC-driven business to a business model that generates stable cash flow from power generation facilities, and the upfront investment burden is holding back cash flow growth and asset efficiency, so future earnings growth is expected.

Looking at the cumulative cash flow over the past five years, gremz is the only company that was able to cover its capital expenditures (the main component of investment cash flow) over the five-year period with cash flow over the period. Although this greatly depends on the aforementioned target market and business model, it is noteworthy that gremz was one of the first to create a business model that can generate stable earnings while many of its competitors in the renewable energy sector are in the midst of a period of upfront investment. Except for Renewable Japan, which

has been losing money in accumulated cash flow for the past five years, the other four companies, including TESS Holdings, are generally in a period of upfront investment, with half of their capital expenditures covered by cash flow from operations and the remaining half financed by direct or indirect financing. In the plant engineering business, such as EPC, the periodic fluctuation of profit/loss is large to begin with, but during the upfront investment period, it is even more difficult to secure earnings as planned. Therefore, it is important to recognize the high volatility in earnings for companies in this industry for the time being.

Figure 9: Cash Flow (millions of yen)

Code	Company name	5-year cumulative operating CF	5-year cumulative investment CF	5-year cumulative financial CF	Cash on hand (change)
5074	TESS Holdings Co., Ltd.	27,254	(57,557)	37,165	7,226
9519	RENOVA, Inc.	58,369	(87,111)	32,328	4,940
1407	West Holdings Corporation	9,193	(24,935)	10,810	(4,854)
9517	erex Co., Ltd	36,790	(63,202)	41,892	9,444
9522	Renewable Japan Co., Ltd.	(19,749)	(26,066)	47,347	1,199
3150	gremz, Inc.	9,457	(3,138)	665	6,984

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. Cumulative figures for 4 years for Renewable Japan only.

Stock Price Index

For companies in their upfront investment periods, whether investors assess them based on actual profits or on cash flow valuations likely depends on each investor's policy. However, as mentioned earlier, gains and losses on derivatives have swung TESS Holdings' performance up and down in the previous and current periods, and we believe it is more appropriate to evaluate the company based on cash flow valuations.

Comparing EV/EBITDA from financial results last period, TESS Holdings, West Holdings, and gremz are around 10x, while erex, which was negative in the previous year, cannot be assessed because it was also in the red in EBITDA. Renewable Japan, which soared in December, is low at around 6x, and RENOVA, which has large assets, mainly large power generation facilities, is at over 20x. At the same time, RENOVA and erex are at 1x book value, but compared to West Holdings, Renewable Japan, and gremz, which are valued at 2-5x, TESS Holdings' 0.5x book value seems exceptionally low.

In the case of TESS Holdings, the main reasons for the share price decline are thought to be the continued downward revisions and the increased liquidity of the stock due to the rights offering. However, we also believe that this situation will not last long unless there is a 20 billion yen loss of assets to justify a PBR of 0.5. In recent years, the company has been strategically investing in large power generation facilities, but since insurance claims are expected to basically cover any unforeseen events, and since the 2022 amendment to Japan's Renewable Energy Act (also known as the " FIT Act") requires a decommissioning reserve for decommissioning costs for solar power generation facilities of 10 KW or more, we see it unlikely that a large loss of assets will put pressure on earnings. This view is also based on the fact that the company has estimated expenses related to the decommissioning of solar power generation facilities related to Japan's decommissioning reserve scheme, which it newly records as an asset retirement obligation and adds recordings to reflect changes in estimation. If the company's performance continues to expand, as stated in its current Medium-term Management Plan, we believe that valuation revisions will proceed.

Figure 10: Price/Valuation Comparison (millions of yen, times)

Code	Company name	Current value	Market cap	EV	Dividend per share	PER	PBR	EV/ EBITDA
5074	TESS Holdings Co., Ltd.	270	19,074	63,273	5.1	16.1	0.5	11.3
9519	RENOVA, Inc.	723	65,919	345,926	-	7.4	1.0	20.7
1407	West Holdings Corporation	1,661	76,452	123,799	65.0	11.3	2.3	9.8
9517	erex Co., Ltd	616	45,843	67,916	-	-2.1	1.0	-4.2
9522	Renewable Japan Co., Ltd.	1,246	37,318	72,240	-	34.3	3.5	6.1
3150	gremz Co.	2,522	60,061	52,160	57.0	17.0	4.7	9.6

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. Share price is the closing price on December 13, 2024.

Market Assessment of U.S. Renewable Energy Companies and the Solar Industry

Renewable Energy Industry: *High Valuations For Upfront Investment*

Figure 11 shows the stock price valuations of representative companies listed on the U.S. stock market in the renewable energy industry within the utilities sector. These companies are primarily in the business of generating, producing, or transmitting electrical energy from renewable energy sources such as nuclear, hydro, wind, geothermal, biomass, solar, tidal, and wave power, and are in the power generation business. While this does not necessarily match TESS Holdings' business models, we consider this group of companies to be a useful reference for the market assessment of the renewable energy industry.

The top two companies both have market capitalizations in excess of 10 trillion yen, while the third place and beyond are companies with market capitalizations in the hundreds of billions of yen. GE Vernova, the top company by market capitalization, was founded in 2023 and offers a range of products and services to generate, transmit, regulate, convert, and store electricity in the United States, Europe, Asia, the Americas, the Middle East, and Africa. It operates in three segments: power, wind, and electrification. The power segment provides engineering, manufacturing, and services for gas, nuclear, hydropower, and steam technologies; the wind segment provides wind power technologies, including onshore and offshore wind turbines and blades; the electrification segment provides grid solutions, power conversion, solar, and storage solutions, and electrification software for the transmission, distribution, conversion, storage, and regulation of power from the point of generation to the point of consumption. Constellation Energy, the second largest company by market capitalization, was founded in 2021 and is the largest producer of carbon-free energy in the United States, generating and selling electricity. Operating in five segments - Mid-Atlantic, Midwest, New York, ERCOT, and Other Power Regions - the company sells natural gas, energy-related products, and sustainable solutions. It has approximately 32 gigawatts of diversified generating capacity consisting of nuclear, wind, solar, natural gas, and hydroelectric assets.

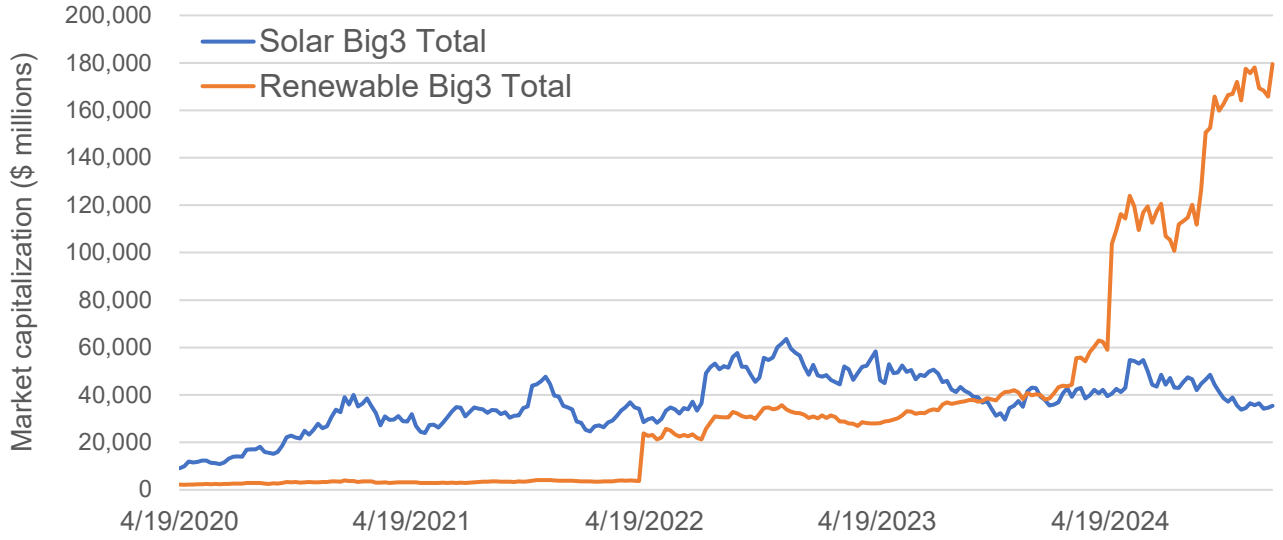
Figure 11: Comparison of Stock Valuations of U.S. Stock Market Listed Utility/Renewable Companies ($, times)

Symbol	Company name	Price (Intraday)	Market Cap (Bil$)	PE Ratio (TTM)	EV/ EBITDA	PBR
GEV	GE Vernova Inc.	328.3	90.5	77.8	61.7	9.5
CEG	Constellation Energy Corporation	234.2	73.3	25.8	12.5	5.8
CWEN-A	Clearway Energy, Inc.	24.5	5.1	23.8	9.6	1.4
ORA	Ormat Technologies, Inc.	71.5	4.3	36.5	13.0	1.8
AY	Atlantica Sustainable Infrastructure plc	22.0	2.6	88.0	9.0	2.0
RNW	Renew Energy Global Plc	7.0	2.6	113.9	11.8	1.9
FLNC	Fluence Energy, Inc.	17.0	2.2	131.1	43.6	4.7
NEP	NextEra Energy Partners, LP	17.7	1.7	28.9	7.5	0.5
ELLO	Ellomay Capital Ltd.	16.3	0.2	-	25.6	1.7

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Share prices are in U.S. dollars and market capitalization is in billions of dollars rounded to one decimal place. Only PER is TTM for stock price valuations; all other values are based on results of the previous period. Share prices are closing prices on December 17, 2024.

Although the top two companies by market capitalization are startups, they have made large investments, mainly in carbon-free energy, and although earnings and cash flow are low at this time, investors are receptive to an equity story of rapidly improving performance in the near future. This is the reason for their high stock price valuations based on performance and TTM earnings. Excluding the above two companies and Ellomay Capital, which continues to be in the red, EV/EBITDA is generally around 10x. Since November 2024, the index has adjusted above the SP500, a move that may be due to the closely watched trends in US energy policy (see Figure 12).

Figure 12: Market Capitalization of Solar/Renewable Companies Listed on U.S. Stock Markets



Source: Prepared by Global IR, Inc. based on annual reports

The Solar Industry: *A Calm Market Assessment of a Peaking Industry*

Figure 13 shows the stock price valuations of representative companies in the solar industry within the technology sector listed on the U.S. stock market. These companies engineer, manufacture, sell, or install solar power systems and components, and many of them are in the same industry or are suppliers to TESS Holdings. We believe that the market valuation of these companies in the U.S. market is also a case study for reference.

First Solar, the top-ranked company by market capitalization, is the world's leading manufacturer of CdTe-based semiconductor photovoltaic cells. Its businesses range from cell and module production to installation, operation, and maintenance services, and the company has maintained relatively stable earnings. Second-ranked Enphase Energy engineers, develops, manufactures, and markets energy solutions centered on semiconductor-based microinverters that provide energy monitoring and control in combination with proprietary network and software technologies. While Enphase Energy's performance expanded through the last fiscal year, this fiscal year, it has stagnated. Nextracker, a company that provides optimization solutions for the engineering, installation, and operation of solar power projects, has continued to post relatively stable earnings. Fourth-ranked Sunrun engineers, develops, installs, sells, owns, and maintains residential solar energy systems and continues to lose money.

Figure 13: Comparison of Stock Valuations of Technology/Solar Companies Listed on U.S. Stock Markets ($, times)

Symbol	Company name	Price (Intraday)	Market Cap (Bil$)	PE Ratio (TTM)	EV/ EBITDA	PBR
FSLR	First Solar, Inc.	188.3	20.2	16.2	11.1	2.7
ENPH	Enphase Energy, Inc.	73.4	9.9	159.6	61.7	10.7
NXT	Nextracker Inc.	35.7	5.2	8.9	6.3	4.1
RUN	Sunrun Inc.	10.1	2.3	-	-	0.4
ARRY	Array Technologies, Inc.	5.5	0.8	63.6	156.4	12.9
SEDG	SolarEdge Technologies, Inc.	14.4	0.8	-	-	0.9
SHLS	Shoals Technologies Group, Inc.	4.9	0.8	24.6	12.1	1.5
CSIQ	Canadian Solar Inc.	11.7	0.8	29.9	24.7	0.3
NOVA	Sunnova Energy International Inc.	4.2	0.5	-	98.7	0.3

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Share prices are in U.S. dollars and market capitalization is in billions of dollars, rounded to one decimal place. Only PER is TTM for stock price valuations; all other values are based on the previous year's results. Share prices are closing prices on December 17, 2024.

Even among the top four companies in terms of market capitalization, there are several companies that are either stagnant or continue to lose money, although the type of business varies widely. Further, there are several companies in the top nine in terms of market capitalization whose losses make their valuations unrealizable. In terms of market valuation of the solar industry, it is difficult to positively evaluate the industry from a performance standpoint. This is in sharp contrast to the high market valuation of renewable energy-related companies in the utility sector, where performance is low (or in the red) due to upfront investment in a variety of power generation sources. Based on the U.S. case, we believe it is important for Japanese renewable energy-related companies to invest in post-solar power generation facilities and to make effective use of invested solar power facilities.

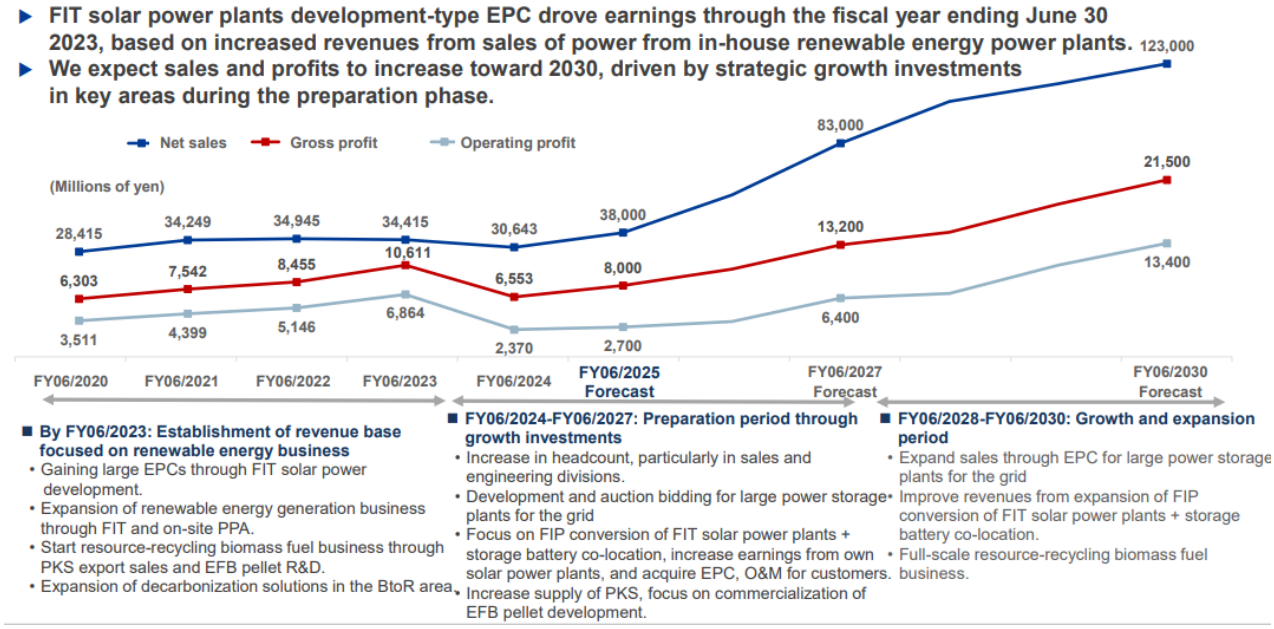
Discussion of TESS Holdings' Medium-term Management Plan

Transforming the Profit Structure Toward FY2030

As we have seen, the Japanese government's initiative to shift to renewable energies and diversify the power supply mix has shifted from the intensive investment in large-scale solar power generation facilities (mega solar) under Japan's FIT system that has been promoted for the past decade or so, to a shift in FIP to promote the effective use of installed solar power generation facilities. The stage is now shifting to the introduction of power storage plants into power grids, which is a concrete measure to achieve this shift, and at the same time, to the diversification of the power supply mix, including biomass, wind, and geothermal power generation. This can be seen in the stock valuations of utilities and the solar industry in the technology sector in the U.S. stock market, where, in contrast to the subdued market valuation of the solar industry, which has peaked out, utilities in the renewable energy sector, which are making upfront investments in the diversification of their power supply mix, are being given high valuations. In turn, the stock market has seen a significant shift in capital over the past year or two, and although there may be a time lag, we believe that the same type of environmental change is underway.

In this environment, in August 2024, TESS Holdings announced its first Medium-term Management Plan, TX2030 (TESS Transformation 2030), which details its 2030 targets. The Medium-term Management Plan explains that the company is shifting its management resources from investments in renewable energy, which were heavily focused on FIT solar power generation, to the effective use of solar power generation facilities already invested in and the diversification of renewable energy sources in the market. The plan also establishes the company's direction in largely converting its earnings structure toward 2030. It is worth noting that this is the same context in which several companies in the renewable energy industry in the utility sector have received high market valuations in the U.S. market. Below, we would like to add some insight into TESS Holdings' Medium-term Management Plan.

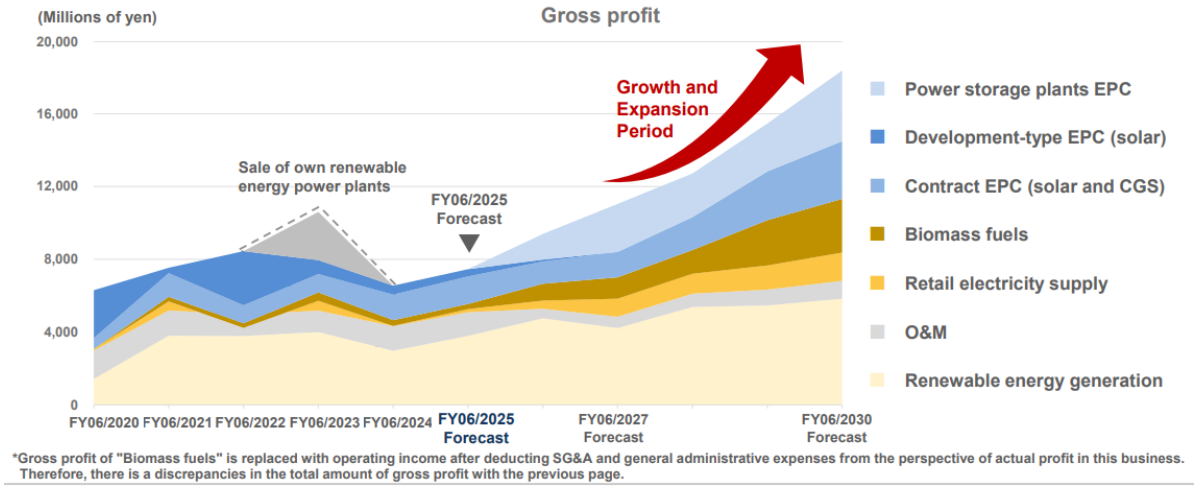
Figure 14: Sales and Profit Targets in TESS Holdings' Medium-term Management Plan



Source: TESS Holdings' IR materials

Compared to the results for the fiscal year ended June 30, 2024, the numerical targets for FY2030 are approximately four times for net sales and six times for operating profit, which may seem like a considerable stretch. However, we believe that there are three key points to achieving the targets in this Medium-term Management Plan: (1) The contribution of stable revenue sources in the power generation and electricity retail businesses, which will continue for the time being; (2) Shifting away from the long-performed EPC of solar power generation facilities toward EPC of power storage plants; and (3) Growing its biomass fuels business toward diversifying its renewable energy power supply mix (see figure).

Figure 15: Profit by Business in TESS Holdings' Medium-term Management Plan



Source: TESS Holdings' IR materials

I. Renewable Energy Generation Business

The renewable energy power generation business conducts investments based on contracts with a fixed sales price under Japan's FIT system, or a price contract that adds a certain premium to the fluctuating market price under Japan's FIP system, as discussed earlier. Therefore, it can be said that this is a business with long-term profit prospects as long as special circumstances such as contract cancellation do not occur. In the case of solar power generation facilities, there are no significant variable costs other than maintenance costs, but in the case of biomass power generation, rising raw material costs are a business risk. However, this is considered the same business risk as for other biomass power generation companies. As of the end of the previous fiscal year, TESS Holdings had 232 MW of power generation capacity, roughly half of its FY2030 target (307 MW as of the end of the six months ended December 31, 2024; more if investments are included). Although it is difficult to expect asset efficiency and high profitability that matches its EPC business, as a stable revenue source it is expected to contribute to earnings roughly in line with plans. However, as a stable source of revenue, it is expected to contribute to earnings close to the plan.

Figure 16: Key Matrix in TESS Holdings' Medium-term Management Plan

Key Metrics

Period	Gross profit	Operating income	ROE	ROIC	In-house FIP rollover Renewable energy cap.	Cumulative installed cap. (Power storage plants for the grid)	Cumulative installed cap. (Power storage plants other than for the grid)	Biomass fuel supply	Renewable energy generation cap. *
FY06/2030 Forecast	**21.5 bn yen**	**13.4 bn yen**	**11.7%**	**5.7%**	**113 MW**	**700 MW**	**150 MW**	**500,000 tons/year**	**470 MW**
FY06/2027 Forecast	13.2 bn yen	6.4 bn yen	5.8%	3.0%	75 MW	100 MW	120 MW	350,000 tons/year	380 MW
FY06/2024 Actual	6.5 bn yen	2.3 bn yen	3.4%	1.6%	0 MW	0 MW	0 MW	104,000 tons/year	231.8 MW

Source: TESS Holdings' IR materials

II. Expansion of Power Storage EPC Business

In Japan, one major trend for the time being is expected to be the effective utilization of power generation facilities through the introduction of power storage facilities using the FIP system, mainly for solar power generation facilities with seasonally restricted output. In order to realize this market trend as a business, the following three points are key: (1) Have connections with customers who have FIP conversion needs; (2) Have EPC capabilities, including site acquisition; and (3) Have a track record and connections with reliable storage battery manufacturers. TESS Holdings meets all of these conditions. The company's track record in FIP conversion of its own FIT solar power generation facilities is also expected to be an advantage for the company, which is pursuing both EPC and power generation as its core businesses. As TESS Holdings builds its track record of power storage battery EPC for FIP conversion, it is expected that the company will gain an increasing number of projects from client companies beyond those with FIP conversion needs, such as those with needs for power storage batteries to serve as power output regulation valves. The 700 MW target for FY2030 is not necessarily an impossible level compared to the total capacity of 1,092 MW

(as of the end of December 2024) of solar power generation facilities that the company has installed through EPC, and is therefore expected to contribute to earnings growth.

Figure 17: Development of Power Storage Plants for the Grid

Development of Power storage plants for the grid

Engineering Segment

▶ **Focus on building up the development pipeline by making maximum use of the development know-how and development system cultivated in the FIT solar power plants business.**

Period	Gross profit (Millions of yen)	Cumulative installed capacity (MW)
FY06/2030 Forecast	3,900	700
FY06/2027 Forecast	1,400	100
FY06/2024 Actual	0	0

Our Strengths

- Steady expansion of development pipeline with know-how and development system for renewable energy power plants, having developed more than 500 MW FIT solar power plants in the high-voltage and extra-high-voltage fields.
- Capability of one-stop service with comprehensive in-house production from site development to financing, design, construction, maintenance, remote monitoring, operation control, and management of storage batteries.
- Accumulation of expertise in the development, construction, and operation of grid storage facilities for the wholesale power trading market, supply-demand adjustment market, and capacity market, underpinned by a successful bid for the Shizuoka Kikugawa Power Storage Plant (22,077 kW capacity) in the Long-Term Decarbonization Power Supply Auction.
- High price competitiveness through the establishment of cooperative frameworks with storage battery manufacturers.

Growth strategy

- Expanding the development pipeline with know-how cultivated through the development of FIT solar power plants. Undertaking EPC on consignment for developed power storage plants.
- Current development pipeline: approx. 2,000 MW capacity (approx. 30 projects).
- Aiming to develop more than 700 MW of projects by 2030 through the tolling method with infrastructure companies as off-takers and utilizing long-term decarbonization power auctions.
- Expanding the energy supply business by providing one-stop services including O&M and operation and management.

"Project Lion" Power storage project for the grid in the UK

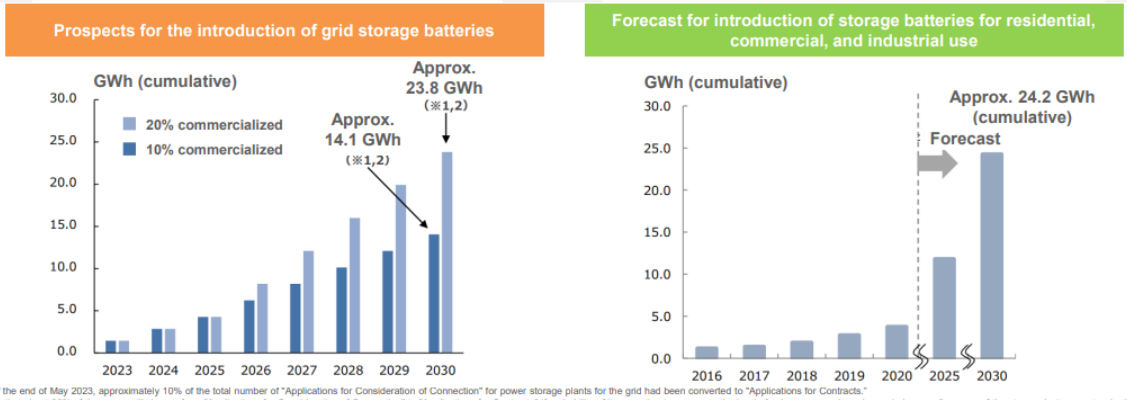
Source: TESS Holdings' IR materials

Figure 18: Prospects for the Introduction of Power Storage Systems

Prospects for the introduction of power storage systems

Engineering Segment

- **The amount of grid storage batteries installed is expected to expand rapidly to a cumulative total of about 14.1~23.8 GWh in 2030**
  *After estimating the output (GW) of the grid storage batteries to be commercialized based on the status of applications for consideration of grid connection, the storage battery capacity (GWh) is calculated assuming a 3-hour rate based on past subsidy project results, etc.
- **The amount of storage batteries installed for residential, commercial, and industrial use is also expected to grow rapidly, reaching a cumulative total of approximately 24.2 GWh in 2030**



(*1) As of the end of May 2023, approximately 10% of the total number of "Applications for Consideration of Connection" for power storage plants for the grid had been converted to "Applications for Contracts."
Assuming that about 20% of the cases will change from "Applications for Consideration of Connection" to "Applications for Contracts" if probability of its operation increases to the level of solar power and on-shore wind power (because of the storage battery cost reduction (see " Organization for Cross-regional Coordination of Transmission Operators, JAPAN' Compilation of information related to grid access operations for power generation" in FY2022)
(*2) The number of projects that shift from "contract application" to "actual operation" refers to the operation ratio of projects that have not yet been certified, which was assumed in the introduction forecast of onshore wind power generation at the time of the 6th Energy Base Study.
The number of projects that will move from "contract application" to "actual operation" is based on the assumption that about 70% of the projects will move from "contract application" to "actual operation" in this forecast as well.

Source: Cabinet Secretariat, JAPAN website "Hosting an expert working group to realize GX"
"Investment strategies by sector ③ (power storage batteries/automobiles, SAF/aircraft, ships, Resource-recycling) " (November 8, 2023) https://www.cas.go.jp/jp/seisaku/gx_jikkou_kaigi/senmonka_wg/dai3/siryou.pdf

Source: TESS Holdings' IR materials

III. Contribution to Resource-recycling Biomass Fuel Business

As mentioned above, TESS Holdings has positioned the resource-recycling biomass fuel business as one of the growth areas in its Medium-term Management Plan. 104,000 annual tons of PKS were sold in the fiscal year ended June 30, 2024, and 200,000 annual tons, roughly double the FY2024 amount, will be used for the Imari Biomass Power Plant, which will start operation in May 2025. The company plans to further promote lumber collection and expand sales outside of the consolidated group to reach 400,000 tons per year in the fiscal year ending June 30, 2030. The company has a track record of gradually increasing the volume of PKS handled by deploying Japanese employees in Indonesia, which it started doing in 2020. TESS Holdings is confident that its expertise will enable it to significantly increase the volume of PKS handled.

In addition, TESS Holdings has been conducting R&D on EFB pelleting in Indonesia since 2018, and has succeeded in converting it into fuel through combustion tests at a power plant. The company continues to conduct R&D for mass production, and in February 2025, a groundbreaking ceremony was held at the Sei Mangkei Industrial Park in North Sumatra, Indonesia, for the construction of a plant that will serve as a manufacturing base for EFB pellets. TESS Holdings believes that its plans for mass production are progressing smoothly. The company plans to increase the production volume at the plant in stages to reach a production capacity of 100,000 tons per year by the fiscal year ending June 30, 2030. Although the profitability of this business is difficult to forecast due to the procurement of raw materials in Indonesia, exchange rate fluctuations, fluctuations in the market price of biomass fuel, and transportation costs, this business is expected to grow in line with the growing need for highly sustainable fuels, supported by the steady demand for biomass power plants under Japan's FIT system. However, we believe that this business is expected to grow along with the increasing demand for sustainable fuels, supported by the steady demand for biomass power plants under Japan's FIT system.

Figure 19: Resource-recycling Biomass Fuel Business

Resource-recycling biomass fuel business

Energy Supply Segment

▶ **Expanding the Circular Economy and Stock Business by Utilizing Residues (PKS, EFB) from the Palm Industry.**

Period	Gross profit (Millions of yen)	Biomass fuel supply (10,000 tons/year)
FY06/2030 Forecast	3,000	50
FY06/2027 Forecast	1,100	35
FY06/2024 Actual	314	10.4

Our Strengths

- Developed a fuel sales business in Indonesia to procure PKS fuel from 2020, started to sell the fuel to biomass power plants in Japan. Established a supply chain including a palm oil mill with two local stock piles (shipping bases).
- We are the only company that dispatches Japanese staff to Indonesia to directly manage PKS purchasing and shipping, and we have earned the strong trust of off-takers.
- In order to make effective use of EFB, R&D for pelletization has been conducted in Indonesia since 2018, and after combustion tests at power plants, etc., EFB has been successfully converted into fuel. R&D for mass production is ongoing.
- Signed an agreement with PTPN (Indonesian state-owned palm plantation company) for "EFB pellet production business. Successfully established a strategic advantage in acquiring raw materials and land for the plant.
- PKS and EFB share the same source of raw materials, and the supply chain established through the PKS fuel sales business can be effectively utilized for EFB fuel.

Growth strategy

- Aggressively develop and expand suppliers, backed by demand for the Group's Saga Imari Biomass Power plant.
- Expand sales of PKS fuel to external customers to 200,000 tons/year and to Saga Imari Biomass Power plant to 200,000 tons/year (total 400,000 tons/year), targeting FY06/2028.
- As for EFB pellets, start production and sales at a small-scale plant by the end of FY06/2025, and continue R&D for mass production. Aim to acquire production capacity of 100,000 t/year during the medium-term management plan period for large-scale commercialization.
- EFB pellets have an overwhelmingly low environmental impact compared to wood pellets due to the effective use of residual materials, appealing to environmentally conscious users.
- In the future, we will consider using various agricultural residues effectively as biomass fuels.

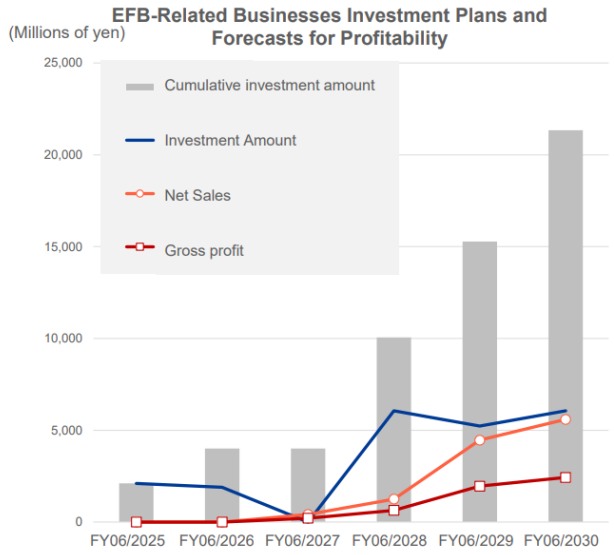
Source: TESS Holdings' IR materials

Figure 20: Resource-recycling Biomass Fuel Business (Investment Plan and Profitability Forecast for EFB-related Business)

Resource-recycling biomass fuel business (investment plan and profitability forecast for EFB-related business)

Energy Supply Segment

▶ **In the EFB-related business, investments will be made continuously from FY06/2025 onward, and full-scale profitability is expected from FY06/2029.**



Background

- Palm Kernel Shell (PKS), a residue generated in the process of palm oil production, is effectively used as fuel for biomass power generation.
- On the other hand, Empty palm Fruit Bunches (EFB) discharged from palm oil mills are not utilized effectively and are considered a problem because they emit methane into the atmosphere through decomposition when left unattended.
- In the 2030 energy mix, Japan's biomass power generation target is about 47 billion kWh, which requires about 20 million tons of biomass fuel per year.
- EFB has been approved as a new fuel that can be used under the FIT system in 2023, and demand for EFB is expected to increase in the future.

Advantages of EFB fuel

- The sustainability of imported wood pellets has been questioned due to the impact of natural forest clearance and plantation development.
- EFB fuel, on the other hand, is a more sustainable fuel made from crop residues and is expected to be sold at the same quality and price level as wood pellets.
- In Japan, the need for more sustainable fuel is increasing, and the company plans to expand sales by targeting co-firing with industrial coal power generation.

Source: TESS Holdings' IR materials

Management Indicators

Figure 21: Per Share Data

Accounting period	FY06/2020	FY06/2021	FY06/2022	FY06/2023	FY06/2024
Total number of shares outstanding (thousand shares)	3,507	35,069	35,244	35,346	70,644
EPS	26.77	31.83	38.43	51.05	16.82
EPS Adjusted		31.42	38.18	50.88	16.80
BPS	127.01	324.47	358.41	401.08	588.72
DPS	20.00	20.52	21.00	26.00	16.00

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. *Calculated by Global IR, Inc.

Figure 22: Cash Flows (millions of yen)

Accounting period	FY06/2020	FY06/2021	FY06/2022	FY06/2023	FY06/2024
Depreciation and amortization	1,943	2,492	2,850	3,127	3,231
Cash flows from operating activities	(1,608)	431	14,646	13,827	(42)
Cash flows from investing activities	(15,348)	(4,475)	(6,215)	(16,029)	(15,490)
Cash flows from financing activities	19,220	17,098	(12,397)	(5,192)	18,436

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. *Calculated by Global IR, Inc.

Figure 23: Financial Data (%)

Accounting period	FY06/2020	FY06/2021	FY06/2022	FY06/2023	FY06/2024
Return on Assets (ROA)	3.6%	4.2%	4.8%	5.9%	7.2%
Return on Equity (ROE)	22.1%	13.1%	11.2%	13.4%	3.4%
Equity-to-asset ratio	9.6%	22.6%	26.7%	30.0%	34.9%

Source: Prepared by Global IR, Inc. based on company securities reports and company IR materials.
Note: Rounded to the nearest million yen, rounded to one decimal place. *Calculated by Global IR, Inc.

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