

IN-DEPTH

Renewable Energy Law

JAPAN

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Renewable Energy Law

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In-Depth: Renewable Energy Law (formerly The Renewable Energy Law Review) provides an insightful overview of the policies, legal structures and state of play in the renewable energy industry globally. It offers a practical guide to the legal frameworks and current status and challenges in structuring, financing and investing in renewable energy projects in key jurisdictions worldwide.

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Introduction

Japan is a country with limited natural energy resources and, as such, its major power generation sources have been thermal power and nuclear power. These are provided by 10 major utility companies in areas across Japan. However, because of the Great East Japan Earthquake and the subsequent accident at the Fukushima Daiichi nuclear power plant in March 2011, the government had to alter its energy policy and structure drastically. After the earthquake, all 54 nuclear plants, which generated about 30 per cent of Japan's power at that time, suspended operations. As at 30 June 2026, only 11 out of Japan's 33 operational nuclear plants are in use.

Under these circumstances, the feed-in tariff (FiT) scheme, whereby the total volume of electricity generated by renewable energy resources is purchased at a fixed price (the FiT price) for a fixed term (the FiT term), was introduced in 2012 to address the need to secure alternative energy sources to replace nuclear power. Renewable source energy generation – solar power generation, in particular – has been rapidly expanding since then. Set out below is the recent data on the share of total renewable energy generation (including self-consumption) in Japan.^[1] As shown in the table below, from the outset of the FiT scheme, solar power generation has been the most popular source.

Source type	Usage (%)									
	2019	2020	2021	2022	2023	2024	2025			
Solar	6.7	7.5	8.1	8.5	9.7	9.7	9.9			
Wind	0.8	0.9	0.9	0.9	1.1	1.2	1.4			
Hydroelectric	7.4	8.0	7.9	7.2	7.6	8.1	7.5			
Geothermal	0.2	0.3	0.3	0.3	0.3	0.3	0.3			
Biomass	2.7	3.3	4.2	4.7	5.8	6.0	6.9			
Total	17.9	19.9	21.4	21.5	24.5	25.3	26.1			

Further, since the introduction of the FiT scheme, the following three material changes have been observed.

First, the FiT price of solar power has decreased continuously, mainly because of sudden drops in the costs of facilities, such as the price of solar modules.

Second, there have been frequent reports of problematic businesses having been certified to sell electricity under the FiT scheme without having secured the necessary land required for energy generation, ultimately resulting in delays to the commencement of their operations. Also, in some cases, entities would secure the entitlement to sell electricity for the sole purpose of transferring or selling that entitlement to another party. In response,

amendments have been made to better ensure the certainty of projects and the prompt commencement of their operations.

Third, under the FiT scheme, major utility companies pass their extra costs from purchasing electricity generated by renewable energy resources to end users by adding those costs to electricity bills. The rapid increase in renewable energy generation, however, resulted in an increased burden on end users. Given this situation, the transition from the FiT scheme to the feed-in premium (FiP) scheme was implemented on 1 April 2022, whereby generators receive a premium to cover the gap between a designated base price (the FiP price) and the reference price based on average market price.

Year in review

Package of measures for large-scale solar power generation projects

On 23 December 2025, the Cabinet Secretariat decided on the “Package of Measures for Large-Scale Solar Power Generation Projects” (the Countermeasure Package). The Countermeasure Package focuses on the protection of the natural environment, ensuring safety, landscape protection and support for local coexistence.

The Countermeasure Package aims to promote the revision of laws, revision of operations and enhancement of cooperation across multiple ministries in an integrated manner. These moves go beyond mere policy trends and can have a broad impact on solar project formulation, financing, construction processes and management practices after the startup stage.

Key measures included in the package are as follows:

- Review of support under the FiT/FiP scheme for ground-based solar power generation projects (will not be available after fiscal 2027).
- Expansion of monitoring systems for renewable energy projects.
- Reinforcement of safety regulations under the Electricity Business Act to prevent accidents caused by faulty design of solar power generation facilities.
- Reinforcement of restrictions on the development and installation of solar power generation facilities through revisions to the laws and regulations related to the Forest Act and the Landscape Act.

Offshore wind business

The amendment of the Act on Development of Marine Renewable Energy Power Generation Facilities came into effect as of 1 April 2026, allowing operators authorised by the Ministry of Economy, Trade and Industry (METI) to occupy certain general sea areas (including Exclusive Economic Zones (EEZ), which were previously not included) to conduct offshore wind power generation projects.

By the end of 2024, the METI had held three rounds of selections for offshore wind business operators. However, in August 2025, one of the authorised operators (selected in round one) declared that they would exit from the offshore wind project on three sea areas, due to factors such as tight supply chains, inflation, exchange rates and rising interest rates. Based on this exit, the METI is now considering revising their offshore wind business operator selection standards.

GX Promotion

The amendment of the Act Concerning the Promotion of a Smooth Transition to a Decarbonised Economic Structure (the GX Promotion Act) came into effect on 1 April 2026 to introduce the Emission Trading System (GX-ETS), which is similar to the EU Emissions Trading System (EUETS).

Long-Term Decarbonisation Power Supply Auctions

Moreover, METI launched the Long-Term Decarbonisation Power Supply Auctions in 2023. These auctions aim to support significant investments in the construction and replacement of liquid natural gas-fired thermal power or decarbonised power sources, such as battery energy storage systems, pumped hydropower and hydrogen/ammonia co-fired thermal plants. This is achieved by ensuring long-term income predictability through a mechanism that secures long-term fixed income. The successful bidders in these auctions will receive financial support in the form of fixed revenue at the bid price for 20 years from Japan's Organisation for Cross-regional Coordination of Transmission Operators (OCCTO). However, these operators will be required to return approximately 90% of the total profits generated from any transactions, except for those gained from these auctions, to OCCTO. On 13 May 2026, OCCTO published the results of the third Long-Term Decarbonisation Power Supply Auction. The tendered capacities and percentages of successful bids by the type of power generation are shown in the table below.

Type of power generation	Capacity (MW)	Amount of successful bids (%)
Pumped storage	818	55
Storage batteries	2,731	46
Ammonia co - firing (retrofit)	264	100
Nuclear power (including investment in safety measures for existing nuclear power)	1939	100
Hydrogen	253	100
Liquid natural gas - fired power plants	4,750	64

Hydrogen Society Promotion Act

The Act on Promotion of Supply and Utilisation of Low-Carbon Hydrogen and its Derivatives for Smooth Transition to a Decarbonised, Growth-Oriented Economic Structure (the Hydrogen Society Promotion Act) came into force on 23 October 2024. The term "low-carbon hydrogen, etc" refers to hydrogen, etc, which satisfies the following requirements: (1) the amount of carbon dioxide emitted during its production is below a certain amount; (2) its utilisation contributes to the reduction of carbon dioxide emissions in Japan in light of international standards on the calculation of carbon dioxide emissions; and (3) other requirements specified by Order of the Ministry of Economy, Trade and Industry (article 2, paragraph (1) of the Hydrogen Society Promotion Act).

Under this new legal framework, a plan approval system has been established. Companies that produce, import and supply low carbon hydrogen in Japan or companies that use low carbon hydrogen as energy and raw materials may prepare plans either independently or jointly. If these plans are approved by the competent minister, the companies will be eligible for measures such as support for facility development and exemptions under the High Pressure Gas Safety Act, the Port and Harbour Act, and regulations related to road occupancy.

By the end of June 2026, the METI certified eight plans.

Act on Carbon Dioxide Storage Business

The Act on Carbon Dioxide Storage Business (the CCS Business Act) came into effect on 22 May 2026. The legislation was introduced to address the need for CCS (carbon capture and storage) as a means of promoting decarbonisation following the continued use of fossil fuels and raw materials, with a view to achieving carbon neutrality in 2050. The CCS Business Act aims to establish a business environment that enables private operators to commence CCS projects by 2030. Its key provisions include:

1. a licensing system for trial drilling and storage businesses;
2. regulations governing storage businesses;
3. a notification system for pipeline transportation businesses; and
4. regulations governing pipeline transportation businesses.

Policy and regulatory framework

The policy background

In February 2025, the Japanese government drastically pushed up its emissions targets for 2040, setting a new target to reach a 73% reduction of its greenhouse gas emissions by 2040 (compared with its 2013 levels). In consideration of the new targets, the government revised its strategic energy plan in February 2025.^[2] The plan calls for nuclear energy to account for 20% of power generation by 2040, and renewable energy to account for 40% to 50% of that. In addition, in FY 2022, renewable energy accounted for 21.8%, nuclear power

for 5.6%, and fired power for 72.6%. On the other hand, in FY 2040, renewable energy is expected to be around 40% to 50%, nuclear power 20%, and fired power 30% to 40%. This clearly indicates that the government aims to convert renewable energy into a major power source.

In February 2023, the Japanese government announced a basic policy to address the need for a stable energy supply and achieve a decarbonised society in the wake of Russia's invasion of Ukraine. The basic policy significantly changes the government's previous nuclear policy and intends for suspended nuclear power plants to be restarted. Further, the government intends to promote the construction of next-generation reactors and allow existing nuclear power plants to operate beyond their 60-year life expectancies by excluding shutdown periods as part of operating periods. This policy's impact on the expansion of non-nuclear renewable energy will need to be closely monitored.

The regulatory and consenting framework

Main source of law and regulation

In Japan, the main source of law and regulation on this topic is the Renewable Energy Act, which was amended on 1 April 2024.

Under the Renewable Energy Act, renewable energy sources subject to the FiT and the FiP schemes are limited to the following:

- solar;
- wind;
- water (currently statutorily limited to small and medium-sized hydroelectric generators with an output of less than 30,000kW);
- geothermal; and
- biomass.

Regulators

The energy industry in Japan, which encompasses electric power, gas and other energy resources, is regulated by the METI or, more specifically, METI's Agency for Natural Resources and Energy. As such, the Renewable Energy Act is administered under the supervision of METI. For example, under the FiP scheme, METI grants certification for generation businesses, and determines the FiP price and the term for which the FiT price applies (the FiP term) on an annual basis.

Furthermore, METI has been maintaining a system referred to as the "Reporting System for Violations of Relevant Laws and Regulations" on which each local government can register relevant information when it becomes aware of a violation of relevant laws and regulations in a project approved for FiT/FiP, pursuant to which the system then automatically reports such information not only to METI but also to the relevant administrative agencies and ministries responsible for relevant laws and regulations. Based on the report, METI then

conducts an on-site investigation (conducted by investigation teams known as “Renewable Energy G-men”) and gives administrative guidance or penalties where applicable.

In response to the Countermeasure Package, projects other than the FiT/FiP scheme are now also subject to such reporting.

Outline of the FiT scheme and transition to the FiP scheme

In summary, the FiT scheme ensures that the total volume of electricity generated by renewable energy generation facilities is purchased by utility companies (in most cases, one of the 10 major utility companies) at the FiT price for the FiT term.

On the other hand, the FiP scheme, which was introduced on 1 April 2022, does not require utilities companies to purchase such electricity. The FiP scheme is a framework that provides investment incentives for renewable energy generators by allowing their operators to receive, in addition to sales revenue from market transactions, a premium at a wholesale power exchange or through over-the-counter transactions. The premium is calculated by deducting a reference price based on the market price (ie, the reference price) from the designated base price (ie, the FiP price). The FiP price is determined in advance as a fixed amount for each fiscal year. There are two ways to determine the FiP price: via a decision by the METI’s minister or a bidding process. The reference price is determined on a monthly basis, and is based on the annual average wholesale price of electricity for the previous year, adjusted by the difference between the monthly average wholesale price for the relevant month in the previous year and the one in the current year.

The current FiT scheme will continue to exist independently of the FiP scheme, although the scope of the FiT scheme for renewable energy power projects will be gradually reduced. That is, for projects certified by the METI in 2025: (1) the FiP scheme is mandatory for solar projects of 250kW or more, but is optional for solar projects of between 10kW and 250kW; (2) it is mandatory for wind projects of 50kW or more; (3) it is mandatory for geothermal/small and medium hydroelectric projects of 1,000kW or more, but optional for those between 50kW and 1,000kW; (4) it is mandatory for biomass (liquid fuel) projects of 50kW or more; and (5) it is mandatory for biomass (other than liquid fuel) projects of 1,000kW or more, but optional for those between 50kW and 1,000kW.

In addition, the FiP scheme does not apply retroactively to existing projects that obtained certification from the METI before 1 April 2022, while operators of existing projects of 50kW or more may choose to transition to the FiP scheme.

The steps to be undertaken by an entity (the generator) so it is able to generate and sell electricity under the FiT scheme can be summarised as follows:

- the generator executes an interconnection agreement with one of the utility companies for the generator's renewable energy generation facility;
- the generator obtains certification from the METI of the generator's renewable energy generation facility and its generation business in accordance with the requirements of the Renewable Energy Act; and
- the generator executes a power purchase agreement (PPA) with one of the utility companies for the generator's duly certified renewable energy generation facility.

The steps under the FiP scheme are the same, except that the PPA under the FiP scheme is based on market transactions, while the PPA under the FiT scheme obligates utility companies to purchase electricity from the generator at the fixed FiT price until the end of the FiT term.

FiT/FiP price and FiT/FiP term

The FiT/FiP price and the FiT/FiP term for each fiscal year (from 1 April to 31 March) are determined annually by the METI, based on the opinion of an independent advisory committee. The independent advisory committee is composed of five neutral third-party members appointed by the METI with the consent of both houses of the Diet (the national legislature of Japan).

As for rooftop solar power installations, which are now attracting attention as a renewable energy source that is easy for businesses to introduce because it uses the roofs of existing buildings without requiring new land and has a relatively small impact on the environment and landscape, an initial investment support scheme for residential and commercial solar power (rooftop installations) has been introduced in October 2025 under the Renewable Energy Act. According to documents from the Committee for the Calculation of Procurement Price, etc, at its 102nd meeting, the government calculated the values necessary to maximise the effect of early returns on investments under certain conditions, with an emphasis on promoting self-consumption and reducing the public burden. The official notification issued by METI set the initial investment support period at five years for commercial rooftop solar installations, with a support price of approximately ¥19/kWh. For residential solar installations, the support period was set at four years, with a support price of approximately ¥24/kWh. In addition to the above support under the FiT/FiP scheme, a new reporting system to promote rooftop solar power installations will be introduced after FY 2027 under the Act on Rationalisation of Energy Use and Shift to Non-fossil Energy. Under this system, certain business operators will be obliged to report their rooftop solar installation goals, and the amount of the roof area on which they can install and have already installed solar panels.

Furthermore, as part of the implementation of the Countermeasure Package, it has been decided that ground-based solar power generation projects will no longer be eligible for the FiT/FiP scheme from FY 2027.

An exception to this is that the METI may determine the FiT/FiP price by a bid system, provided that certain circumstances are met). In 2026, this bid system applies to:

- FiP-certified solar power generation of 250kW or more;
- onshore wind power of 50kW or more (other than replacement); and
- bottom-mounted offshore wind power.

In the most recent bidding process, the results of which were announced in June 2026, the weighted average price for solar power was ¥7.13/kWh. The weighted average price in 2025 for onshore wind power determined by the bid system was ¥11.96/kWh. There were no bids for biomass power and bottom-mounted offshore wind power in FY 2025.

The table below sets out the changes in FiT/FiP prices and applicable FiT/FiP terms from the outset of the FiT scheme. In relation to solar power, as a reflection of, among other

things, the sudden drop in the price of solar modules, the FiT/FiP price is falling. In contrast, measures have been taken to establish favourable pricing for, and support investment in, offshore wind power and existing headrace tunnel-type medium- and small-scale hydroelectric power generators.

Changes in FiT/FiP prices and applicable FiT/FiP terms										
Source type	Installed capacity (kWh)	FiT/FiP price excluding tax (¥)						FiT/FiP term (years)		
2020	2021	2022	2023	2024	2025	2026	2027			
Solar*	<10	21	19	17	16	16	refer to the table below			10
	≥10 <50	13	12	11	10	10	9.9	—	20	
	≥50 <250	12	11	10	9.5	9.2	8.9	9.6	—	20
	≥250	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	—	20	
Wind	Onshore (not subject to a bid)	18	17	16	15	14	13	14	13.7	20
	Onshore (subject to a bid)		Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	20	
	Onshore (replaced)*	16	15	14	13	13	12	13	—	20
	36	36	36	36	36	36	36	36	20	

Offshore (floating)										
Offshore (bottom mounted)	Price set via a mounted bid system	32	29	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	Price set via a bid system	20	
Geothermal	<1,000	19–40 based on device used	19–40 based on device used	19–40 based on device used	19–40 based on device used	19–40 based on device used	19–40 based on device used	19–40 based on device used	—	15
	≥1,000 <15,000	—								
	≥15,000	12–26 based on device used	12–26 based on device used	12–26 based on device used	12–26 based on device used	12–26 based on device used	12–26 based on device used	Price changes continuously depending on output		
	≥30,000	12–26 based on device used	—							
Hydroelectric	<200	34	34	34	34	34	34	34	34	20

≥200 <1,000	29	29	29	29	29	29	29	29	20	
≥1,000 <5,000	27	27	27	27	27	23	23	—	20	
≥5,000 <30,000	20	20	20	16	16	16	16	—	20	
Exist- ing headra- ce tunnel - type medium - and small - scale hydroe- lectri- c	<200	25	25	25	25	25	25	25	25	20
≥200 <1,000	21	21	21	21	21	21	21	21	20	
≥1,000 <5,000	15	15	15	15	15	14	14	—	20	
≥5,000 <30,000	12	12	12	9	9	9	9	—	20	
Biomass		13-40 based on materi- al used	13-40 based on materi- al used	13-40 based on materi- al used	13-40 based on materi- al used	13-40 based on materi- al used	13-40 based on materi- al used	13-40 based on materi- al used	—	20
*The commercial solar (above 10 kW) shall not be newly certified under the FiT/FiP scheme after FY 2027, except for the projects awarded in FY 2026. However, projects certified before FY 2026 and projects awarded in FY 2026 under the FiT scheme may be transferred to the FiP scheme. * For those that are interconnected via the interconnection capacity of existing power generators that are scheduled to be abolished (i.e., replaced), special prices have been										

established since the 2017 fiscal year due to the low business risk and low cost of replacement compared to new installations.

[†] Offshore wind power: generators that require a vessel for access for construction and operational maintenance.

[‡] Existing headrace tunnel - type medium - and small - scale hydroelectric power: generators that utilise existing headrace tunnels with renewable electric power equipment and hydraulic steel pipes.

[§] Excluding biomass power generated by certain wood or agricultural products with a capacity of 10MW or more and biomass power generated by biomass liquid fuel, which are subject to a bid system till FY 2025 and shall not be newly certified under the FiT/FiP scheme after FY 2026. In addition, when a project that was already certified before FY 2025 is to change its business plan (change in its FiT/FiP price) in or after FY 2026, the project will no longer be certified for the FiT/FiP scheme. However, projects that were already certified before FY 2025 under the FiT scheme may be transferred to the FiP scheme.

[¶] For 2022–2026, each figure represents the FiT price (excluding tax) and the FiT term under the FiT scheme, and the FiP price and the FiP term under the FiP scheme.

For initial investment support scheme (rooftop solar power generation), etc

Changes in FiT/FiP prices and applicable FiT/FiP terms

Source type	Installed capacity (kWh)	FiT/FiP price excluding tax (¥)		FiT/FiP term (years)
2025 (- from April to September)	2025 (from October to December) to 2026			
Solar	<10	15	24 (~4th years) 8.3 (5th~10th years)	10
≥10 <250 (- roof - installed type)	11.5	19 (~5th years) 8.3 (6th~20th years)	20	

[¶] For 2022–2026, each figure represents the FiT price (excluding tax) and the FiT term under the FiT scheme, and the FiP price and the FiP term under the FiP scheme.

Grid connection process

To sell electricity under the FiT scheme or the FiP scheme, power generation facilities must be connected to the utility company's electricity grids. Therefore, a grid connection agreement must be entered into with the utility company. As the grid connection agreement is required to obtain certification by the METI, an application for a grid connection

agreement should be completed prior to making an application to the METI. Each major utility company has, and posts on its website, standard terms for its grid connection agreement and, while it is not practically possible to materially alter the standard terms, each agreement is subject to negotiations.

Prior consultations with the relevant utility company are not mandatory, but are customary and are conventionally expected. The consultations with the utility company take the form of a preliminary consultation and a follow-up detailed consultation.

Certification granting process

Certification by the METI is the core element of both the FiT scheme and the FiP scheme. To obtain the certification, a plan of the generation business must be submitted to the METI, along with certain supporting documents. The business plan should include detailed information on, among other things, the generator, the power generation facilities, the project site, the maintenance system and estimated costs. Specifications for the facilities, such as the manufacturer and model number of solar modules, must also be described in the business plan.

Since 1 April 2024, the Renewable Energy Act requires conducting and providing briefing sessions (or advance notice measures, depending on the types of renewable energy facilities) to local residents when applying for the certification of business plans for renewable energy power generation projects. These briefings are required when certifying high-voltage and extra-high-voltage renewable energy power plants projects, with certain exceptions. This requirement not only applies to applications for certification of a business plan for new projects, but also to certain applications to amend the business plans of existing projects, such as:

- changes to the approved business operator due to business transfer, merger or company split;
- changes to closely related parties of the approved business operator, such as:
 - a member of a membership company;
 - a shareholder holding a majority of voting rights in a stock company;
 - a TK (*tokumei kumiai*) investor holding a majority of the TK investment (a form of silent partnership); or
 - a parent company of these parties); and
- changes to the location of the renewable energy power generation facilities.

Unless briefings are conducted and three months have passed, a new business plan or an amended business plan may not be filed to receive certification.

Following the revision of the enforcement regulations in April 2025, an application for certification can now be filed immediately after holding a briefing session (ie, it is not necessary to wait for three months) in the event that no local residents are present at a briefing.

The METI will grant certification when it judges the business plan and power generation facilities to be appropriate in light of various criteria. Among the key points (in addition

to the required briefings mentioned above) are the ability to secure a grid connection agreement and the project's site. If these two elements are in place, the renewable energy generation facility's development is relatively certain and it is more likely to obtain certification. These criteria were introduced to address the issue of generators obtaining certification without having sufficient resources in place, resulting the commencement of operations being delayed.

According to the website of the METI's Agency for Natural Resources and Energy, the METI grants certification within three months (or four months for biomass power projects).

After certification is granted, the METI's authorisation is required to amend business plans; except for minor amendments, for which a post-fact notification must be supplied to the METI. For example, if a generator would like to change the manufacturer or model number of solar modules indicated in their business plan, it should obtain the METI's authorisation.

In addition, even after the certification is granted, the METI may cancel the certification if it finds that the business is not conducted in accordance with the business plan; the business plan is no longer able to satisfy one of the criteria for the certification; or the generator does not comply with the METI's orders.

Furthermore, pursuant to the revision of the Ordinance for Enforcement of the Renewable Energy Act, a new system that enables operators to be exempt from certain certification granting procedures has been introduced. When an operator falls below certain prescribed standards, it will be certified as a qualified long-term stable solar power generation business operator (qualified business operator), meaning that it is (1) a responsible entity capable of earning the trust of the local community, (2) capable of conducting long-term stable business and (3) capable of conducting business without the FIT/FIP scheme.

The following four special provisions apply to a qualified business operator:

1. In principle, even when a qualified business operator or a person closely related to a qualified business operator (the qualified business operators, etc) makes certain significant changes to its renewable energy power generation business plan, it is exempt from the obligation to hold explanatory meetings, and it is sufficient to implement prior notification measures.
2. With respect to two or more solar photovoltaic power generation facilities installed by different operators, if all of the operators are closely related and fall within the scope of the policy on initiatives for ensuring safety, etc, published by a single qualified business operator, a shared supervisory system for chief electricity engineers is permitted among such facilities.
3. Where an additional power generation facility is installed during the statutory reserve period for disposal costs, the cost of disposing such additional facilities would generally need to be reserved in a lump sum. However, a qualified business operator, etc is not obliged to pay this in a lump sum and may instead reserve the cost over the remaining statutory reserve period.
4. When a business is publicly soliciting buyers before the end of the procurement period/grant period, the information must be released in advance to the qualified business operator. It will also be released in advance to local governments wishing to obtain such information.

As of 30 January 2026, three operators have been certified as qualified business operators.

Power purchase agreement

Under the FiT scheme, unless certain exceptions apply, utility companies are obliged to enter into PPAs with generator that obtains the required certification and applies for a PPA. Each utility company posts the standard terms for its PPAs on its website, which are subject to negotiation on a project-by-project basis. However, in practice, it is not possible to materially alter these standard terms.

This step is not required under the FiP scheme, and therefore this process is simpler. Nonetheless, in practice, even under the FiP scheme, generators will usually enter into a corporate PPA that will provide a fixed price for the duration of the contract in order to avoid volatility in the electricity market.

Commercial operation deadlines

To address the past issue of a generator obtaining certification without having sufficient resources in place, resulting in delayed commencement of operations, the Renewable Energy Act was amended to introduce a deadline for renewable energy projects to reach commercial operation (COD).

The FiT/FiP term commences the day after the date of the COD. Therefore, if a generator fails to meet their COD, their project will not be able to fully utilise the FiT/FiP term (eg, a one-month delay triggers a one-month deduction from the FiT/FiP term), and will incur a loss as a result.

The date of a COD depends on the project's energy source, as follows:

1. solar power projects with output capacities of 10kW or more: three years;
2. hydro power projects: seven years; and
3. wind power and geothermal heat power projects, which require environmental impact assessments: eight years.

CODs apply to solar power projects that enter into grid connection agreements or receive certification by the METI on or after 1 August 2016, and other renewable energy projects that receive certification by the METI on or after 1 April 2018.

To supplement this regulation, a new regulation entered into force in December 2018. The new regulation applies to solar power projects that are not subject to a COD, specifically, those for which certification was granted between April 2012 and March 2015, and for which grid connection agreements were entered into before 1 August 2016. Under the new regulation, an application for the start of grid connection construction (GCC) must have been received by the utility company by 31 March 2019 and operations must have commenced by 31 March 2020 (or, if the GCC was received after 31 March 2019, one year after the GCC was received by the utility company).

Further, since 1 April 2022, the Renewable Energy Act has adopted a new rule whereby, after the COD, generators are given a final date to commence operations and, if they fail to meet

this deadline, their certification will be revoked. The new rule applies to all projects that have not yet commenced operations. When a project cannot commence operations before its COD, the progress of construction during the 12 months following the COD determines whether or not the generator's certification will be revoked. For example, for a solar power project of 10kW or more:

- when a generator has not commenced operation or applied for a GCC within one year of the COD, the generator's certification will expire; and
- when a generator has not commenced operations, but has applied for a GCC within one year after the COD, a three-year grace period commencing on the date of the COD will be granted.

An exceptional measure applies to projects that require environmental assessments under the Environmental Impact Assessment Act, whereby a two-year grace period is added to the COD to prevent the generator's certificate from expiring before the assessment is completed.

Reserve system for disposal costs of solar power plants

Since July 2022, the Renewable Energy Act has imposed an obligation on generators of solar power plants to, in principle, externally reserve funds for costs related to the disposal of the facilities. This new scheme aims to address concerns that generators may not properly dispose of solar power plants because they have not reserved enough funds to do so.

The scheme applies to all certified solar power projects of 10kW or more (including projects consisting of multiple solar power plants) that will be certified or have already been certified. In principle, a certain amount is withheld from the electricity sales price receivable by the generator from the power company and is accumulated externally. Such accumulation begins 10 years before the FiT/FiP term ends. If they meet certain requirements, generators may make internal reserves instead of the external ones on an exceptional basis. Failure to reserve the funds will trigger the cancellation of their certificate by the METI.

The reserved fund will be reimbursed to the generator from the OCCTO that manages the reserved fund, provided that the generator submits documents showing that the disposal of the facilities can be reliably anticipated.

Other regulations

Electricity Business Act

Under the Electricity Business Act, before beginning the construction of certain power generation facilities (ie, geothermal power, hydroelectric power, solar power of 2,000kW or more, wind power of 500kW or more, and biomass power of a certain size, depending on the type) or stand-alone battery storage systems with outputs of 10MW or more or a capacities of 80MWh or more, the generator must submit the facility's construction plans to the METI. In addition, the generator must conduct a self-check of its power equipment

and report the results to METI before the COD (in response to the Countermeasure Package, the Japanese government is now considering revising the Electricity Business Act to introduce a new system in which a third-party certifying authority shall examine the applicability of certain engineering standards for the basements of solar power facilities, etc). In addition, to ensure the safety of the maintenance and operation of the facilities, the generator must establish an internal safety regime and submit details of this to METI, and appoint a chief engineer, who will be in charge of supervising the safety of the facility's maintenance and operations. The generator must notify METI of the chief engineer's appointment.

After the COD, the generator must maintain its facilities to ensure that they conform to the technical standards established by the METI.

In addition, on 1 April 2023, the Electricity Business Act classified standalone battery energy storage systems as power generation businesses, and allowed them to apply to be connected to the electricity grid. The government subsidies for battery energy storage systems have encouraged many companies to invest in battery storage projects.

Environmental impact assessments and prior consultations

The Environmental Impact Assessment Act applies to:

- solar power projects of 30MW or more;
- wind power projects of 37.5MW or more
- biomass power projects of 112.5MW or more; and
- geothermal power projects of 7.5MW or more.

Furthermore, in response to the Countermeasure Package, the Japanese government is considering revising the act. In particular, for solar power projects, the threshold will be decreased to 15MW.

The Environmental Impact Assessment Act requires a survey, forecast and evaluation of possible environmental changes caused by implementation of the project, a process that takes a considerable amount of time to complete. As such, in practice, a project's timeline is affected by whether or not this Act applies.

In addition, some local governments maintain their own environmental impact assessment rules and often require that various permits and licences are secured, depending on the applicable circumstances.

Land-related laws and regulations

There are several laws, including local government rules, that restrict the use of land in certain areas. Under the Cropland Act, for example, permission from the prefectural governor is required to use land designated for agricultural crops for any other purpose. Therefore, careful due diligence should be conducted before obtaining a project site.

Furthermore, in response to the Countermeasure Package, in order to protect the land: (1) the amended Forest Act came into force as of April 2026 to reinforce the regulations

on the development of forests, and the government revised their standards for permitting developments; and (2) relevant guidelines for the Landscape Act have been established.

GX Promotion Act

Under the GX Promotion Act, the Japanese government will issue bonds for the transition to a decarbonised economic structure (GX Transition Bonds) in order to promote long-term investment from and improve predictability for the private sector. GX Transition Bonds will form an upfront investment of approximately ¥20 trillion over 10 years from FY 2023, and will be used to fund the costs of measures to promote the green transformation (GX). In addition, the GX Promotion Act will implement the following:

- the Fossil Fuel Levy: from FY 2028, levies will be collected from fossil fuel extraction operators (eg, persons who extract crude oil or take it from a bonded area) in proportion to their greenhouse gas emissions. The Fossil Fuel Levy and Specified Business Contributions aim to provide incentives to business operators to continue GX efforts. In addition, they are used to redeem GX Transition Bonds; and
- the GX-ETS, which will include the following three key measures:
 - companies with direct CO₂ emissions of 100k tons/year or more will be required to participate. (The number of companies affected is estimated to be around 300 to 400, covering approximately 60% of Japan's GHG emissions.)
 - Allocation of allowances will be set for specific industrial sectors, with some additional considerations.
 - A ceiling price will be introduced, and measures will be implemented to stabilise the market if prices fall below a set minimum.

Renewable energy project development

Project finance transaction structures

Typical project financing structure and principal participants

In typical renewable energy project financing transactions, a project owner is a special purpose company (SPC). An SPC acquires ownership or leasehold of the project site, builds and operates power generation facilities, and receives the electricity sales proceeds from a utility company under a PPA.

In Japan, there are two types of limited liability companies that can be used as SPCs: stock companies, and limited companies (GK). However, a GK is used far more often since it is less time-consuming and less costly to set up than a stock company, and is more favourable to lenders as GKs are not subject to the Corporate Rehabilitation Act, which can prohibit the foreclosure of collateral. For the purposes of this chapter, our assumption is that an SPC will take the form of a GK.

Lenders usually request that a general incorporated association (ISH) be a member of the GK and manage its operations to eliminate the project sponsor's influence. An ISH is owned and managed by an independent third party (such as a public accountant). There are accounting firms that provide professional services to set up and manage a GK and a related ISH.

A project sponsor injects equity into a GK by way of a silent partnership (TK), which is explained in detail below. Also, the project sponsor is required to submit a sponsor letter to lenders in which it agrees to directly indemnify the lenders against damages arising upon the occurrence of certain events. The scope of indemnification should be a key point in the negotiations between the project sponsor and the lenders.

Debt finance is provided by lenders to the GK to fund the project's construction and operational costs. There are various lenders that may provide debt finance to renewable energy projects in Japan, including the Development Bank of Japan, commercial banks (such as Mizuho Bank Ltd, Sumitomo Mitsui Banking Corporation and MUFG Bank Ltd), trust banks, international banks, regional banks and life insurance companies.

In addition, the following entities play important roles in projects:

- the GK's asset manager, who is responsible for the management of the GK's assets pursuant to an asset management agreement (AM agreement);
- operation and management contractor, who is in charge of operation and management of the facilities pursuant to an operation and management agreement (O&M agreement);
- a utility company that purchases electricity from the GK under a PPA; and
- an insurance company that provides insurance to cover damage to facilities caused by natural disasters, etc.

Documentation

The main documentation required in connection with renewable energy project finance transactions consists of finance and project documents. Finance documents include a loan or facility agreement, security documents, an inter-creditor agreement (if multiple lenders are involved), a sponsor letter, and hedging agreements if an interest rate swap is arranged.

Project documents include: an AM agreement, an O&M agreement, an EPC agreement, a grid connection agreement, a PPA, insurance policies, a lease agreement for the project site if the SPC leases it and a TK agreement (if required).

Typical debt finance structure and security package

Debt finance is typically arranged so that it is repaid entirely from the project's cash flows, namely the proceeds of electricity sales by the utility company. The project sponsor owes indemnification obligations only to the extent specified in the sponsor letter. The typical tenor for term debt is linked to the FiT/FiP term (18.5 to 20 years in the case of solar and wind power projects).

All the GK's assets and contractual rights and positions are provided to the lenders as security. The security package includes: mortgages over project sites, assignments as security over facilities, pledges over bank accounts, insurance proceeds and equities (i.e., membership of the GK and TK interests in the GK), and assignments as security over contractual rights and positions set out in project documents.

TK equity structure

The TK structure is unique to Japan. It is a contractual and bilateral relationship between two entities (rather than creating a separate legal entity), in which one party (the TK investor) contributes to the business of the other party (the TK operator), and the TK operator distributes profits earned by the business to the TK investor. In renewable energy financing transactions, a project owner becomes the TK operator and a project sponsor usually becomes the TK investor.

The key feature of the TK is that the TK investor cannot be involved in running the TK's operator's business. In other words, in project finance transactions, it must be ensured that the project sponsor (the TK investor) has no rights to administer or operate the GK's business (the TK operator), and that the project sponsor only has a passive right to receive distributions of profit from the GK's business.

The TK structure is quite common in renewable energy and other project or asset financing transactions, mainly for tax reasons. That is, distributions to the TK investor are included in the TK operator's deductible expenses, thereby reducing the corporate tax to be imposed on the TK operator. Nevertheless, a careful analysis should be conducted in the case of cross-border TK structures in which the TK investor is not a tax resident of Japan and the TK investor is not considered to have a permanent establishment in Japan through the TK operator.

Infrastructure fund market

Investors in renewable energy projects are basically limited to professional corporations that have expertise in such projects. However, it has been recognised that the scope for suitable investors should be expanded to promote renewable energy projects. In April 2015, the Tokyo Stock Exchange established an infrastructure fund market that enables the listing of funds that invest in renewable energy generation facilities. Currently, five funds investing in solar power projects are listed on the market. The market provides opportunities for a broad range of investors, including retail investors, to invest in renewable energy projects and adds exit options, particularly for developers who develop large-scale power generation facilities.

Non-project finance development

Project companies have been seen to develop renewable energy projects through full equity finance, corporate finance or finance lease arrangements. Another relatively new structure is crowdfunding. Crowdfunding is a scheme whereby retail investors contribute to a business operator by way of a TK arrangement, and the business operator uses the contributions to extend loans to a generator that operates renewable energy projects.

Distributed and residential renewable energy

With a view to expanding residential renewable energy, the METI and local governments have taken the following actions in addition to the FiT/FiP scheme.

First, certain local governments are subsidising a portion of the costs of installing renewable energy facilities and related equipment. For example, the Tokyo Metropolitan Government subsidises the entire cost (up to ¥360,000 per 1kW)^[3] of installing solar power generation facilities in new houses by Tokyo citizens.

Second, a three-year special tax treatment reducing property tax on power generation facilities acquired before 31 March 2022 is available under certain conditions.

Third, Japan Finance Corporation, a wholly owned subsidiary of the Japanese government, may extend loans to fund the installation cost of renewable energy facilities.

While in the past we have seen house or building owners becoming generators through ownership of solar modules, rooftop lease arrangements are becoming more popular. In such cases, the generator leases a roof and installs its solar equipment on it, and then sells the electricity to a utility company under the FiT scheme. In addition, it is reported that recently more and more local governments have been renting the rooftops of public buildings, such as schools and public halls, to generators for solar power generation.

Renewable energy supply chains

There are various Japanese companies manufacturing renewable energy equipment, such as solar modules, power conditioning systems and biomass boilers. For example, Sharp Corporation and Kyocera Corporation have held certain market shares in solar modules.

However, many non-Japanese renewable energy equipment manufacturing companies are expanding their market share in Japan, mainly due to offering low prices. According to PVeye News in April 2021, JinkoSolar (China) shipped 1.1GW to Japan in 2020 for the second consecutive year, the only company to exceed 1GW. As in the previous year, Canadian Solar (Canada), JA Solar (China), Hanwha Q Cells (South Korea) and Trina Solar (China) also maintained a high level of shipments to Japan with more than 500MW.

In addition, in relation to wind turbines, in 2019, Hitachi Ltd and Japan Steel Works Ltd announced their withdrawal from wind turbine production. On the other hand, according to a report by Nikkei on 24 May 2021, JFE Plant Engineering Co Ltd, Toshiba Corporation and other Japanese companies were focusing on producing certain components of offshore wind turbines, such as nacelles and wind turbine foundations, called "monopiles". Wind power generation facilities made by General Electric will be used in three offshore wind projects for which operators were selected in 2021. General Electric has a strategic partnership agreement with Toshiba Energy Systems & Solutions Corporation (TESS) in connection with the offshore wind projects and is working with TESS to build a supply chain.

Outlook and conclusions

After several years of rapid growth of solar power generation following the introduction of the FiT scheme in 2012, there has been an observable backlash against solar power since 2016 (in particular, there has been a trend towards integrating the measures to be taken under the Countermeasure Package), and it has been said that the solar power boom in Japan is over. However, Japan is in a transitional phase, which could be characterised as a process of trial and error. The new systems introduced by the Renewable Energy Act in 2022 and 2024 should be considered part of this process.

First, the FiP scheme is a step towards making the renewable energy projects independent and is designed to ensure that investment incentives are secured while encouraging integration into the electricity market.

Second, to ensure a reserve for disposal costs for power generation facilities, the Renewable Energy Act requires generators of certain solar power projects to make a withholding-like external reserve.

Third, to effectively use the limited grid, under the Renewable Energy Act, certification provided for power generation projects that do not begin operation within a certain period will be revoked.

Last, certain business operators are required to hold briefings for local residents as part of the requirements for application of FiT/FiP certification.

As such, although more cost-effective approaches will be sought, solar power projects are expected to continue to constitute the majority of new projects. Also, we would like to mention that, these days, investors are increasingly bulk buying used small or medium-scale solar power plants. The reason is that the METI has recently certified fewer large-scale solar power plants and there are fewer profitable second-hand large-scale power plants for sale. Nonetheless, as Japan is an island nation, there is still room for growth for wind power projects – offshore wind power projects in particular. In 2025, operators for three offshore wind projects declared to exit from the project. Due to recent inflation, it may be challenging for operators to proceed with the project in accordance with the parameters set out in their respective bids; however, the government is now considering measures to maintain the secure operation of offshore wind projects. The success of these offshore wind power projects will be a benchmark for the future development of offshore wind power projects.

In addition, due to the revision of the Electricity Business Act affected in 2023, and the support of government subsidies (including those under the Long-Term Decarbonisation Power Supply Auctions launched in 2024), the new business of standalone battery energy storage systems, which help to stabilise the supply of electricity from renewable energy sources, is attracting interest from companies.

On 22 May 2026, the CCS Business Act entered into force to establish a business environment that enables the private sector to commence CCS operations by 2030. This Act is based on the recognition that the introduction of CCS is essential for promoting decarbonisation after the use of fossil fuels and raw materials, in pursuit of achieving carbon neutrality by 2050.

Against the backdrop of the recognised need to promote the use of low-carbon hydrogen as a key energy source and raw material for advancing GX (Green Transformation) toward carbon neutrality by 2050, the Hydrogen Society Promotion Act – which provides support measures for approved operators – took effect on 23 October 2024.

Finally, the GX Promotion Act will implement measures that are intended to impose economic burdens, such as by imposing levies on carbon emissions as a type of carbon pricing and introducing the GX-ETS. Even if the Japanese economy aims to promote corporate activities that do not emit any greenhouse gases in the medium to long term, it would be difficult to completely stop using fossil fuels in the course of that process. However, when considering the extraction and use of fossil fuels, it is also necessary to take into account the corresponding economic burdens and disincentives, such as the levies under the GX Promotion Act.

Endnotes

- 1 Report dated 3 July 2026, compiled by the Institute for Sustainable Energy Policies, available at <https://www.isep.or.jp/archives/library/15738>. ^ [Back to section](#)
- 2 Cabinet Decision on the Seventh Strategic Energy Plan as of 18 February 2025, available at www.meti.go.jp/english/press/2025/0218_001.html. ^ [Back to section](#)
- 3 Up to ¥100,000 per 1kW for solar power generation facilities over 3.6kW. ^ [Back to section](#)



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