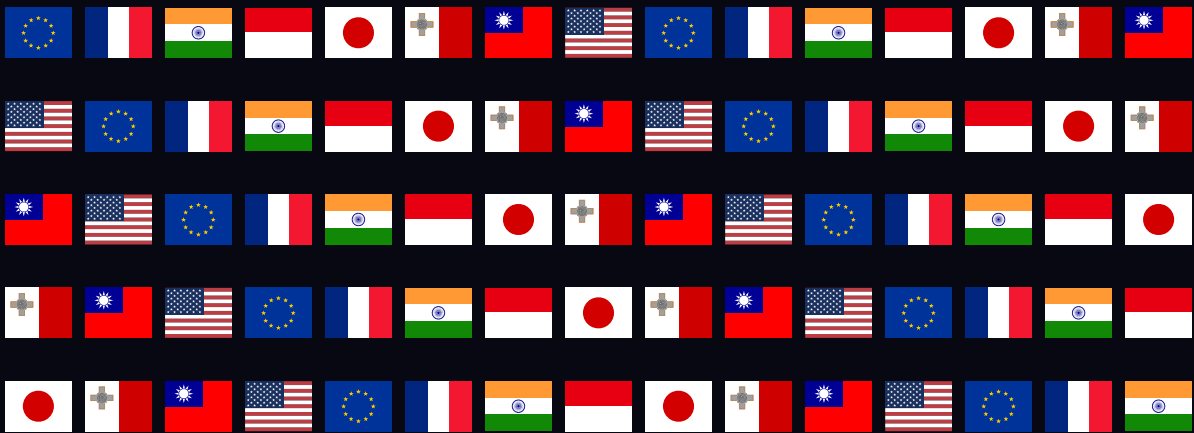


CLIMATE REGULATION

Japan



Climate Regulation

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Quick reference guide enabling side-by-side comparison of local insights, including the main climate regulations, policies and authorities; national emission levels, limits and emission reduction projects; emission allowances and trading; energy and non-energy sector regulation; renewable energy consumption, policy and general regulation, including carbon capture and storage; climate matters in M&A transactions; and recent trends.

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MAIN CLIMATE REGULATIONS, POLICIES AND AUTHORITIES

International agreements

Do any international agreements or regulations on climate matters apply in your country?

Japan has ratified the 1992 United Nations Framework Convention on Climate Change (UNFCCC). Pursuant to the provisions of the UNFCCC, Japan periodically reports to the UNFCCC secretariat on GHG emissions and removals in Japan, the implementation status of countermeasures and policies for climate change, and the status of assistance provided to developing countries to help them combat climate change.

Japan signed the Kyoto Protocol in 2002. Japan has set up a goal of reducing GHG by 6 per cent during the period from 2008 to 2012. After the approval of the Kyoto Protocol Target Achievement Plan in a cabinet meeting in April 2005, Japan has implemented measures to achieve this goal. Japan did not participate in the protocol during the second commitment period, from 2013 to 2020. Subsequently, at COP21 in December 2015, the Paris Agreement was adopted as a new international framework for the reduction of GHG emissions in the post-2020 period, replacing the Kyoto Protocol.

Japan ratified the Paris Agreement in 2016, and set up a goal of reducing, by the fiscal year 2030, GHG emissions by 46 per cent of the level of GHG emitted in the fiscal year 2013, and by a further 50 per cent in the post-2030 period. Furthermore, in 'The Long-term Strategy under the Paris Agreement', which was approved in the cabinet meeting on 22 October 2021, Japan declared that it will aim to achieve net zero GHG emissions by 2050, namely, '2050 Carbon Neutrality'.

Based on the above, Japan has submitted its nationally determined contribution (NDC) which aims to reduce GHG emissions by 46 per cent (compared to the financial year 2013) in the financial year 2030 and to achieve net-zero by 2050 (please refer to the website of the UNFCCC in connection with Japan's NDC).

Law stated - 31 August 2023

International regulations and national regulatory policies

How are the regulatory policies of your country affected by international regulations on climate matters?

Japan enacted the Act on Promotion of Global Warming Countermeasures (Global Warming Countermeasures Act) in 1998 as a countermeasure for global warming, which was revised in 2022 by taking into account the Paris Agreement and with a view to achieving 2050 Carbon Neutrality. Following the revision, it is now specified in law that the increase in the global average temperature will be held to well below 2°C above pre-industrial levels and efforts will be pursued to limit the global average temperature increase to 1.5°C above pre-industrial levels as prescribed in article 2, 1(a) of the Paris Agreement, as well as that Japan will realise a decarbonised society by 2050 (Article 2-2 of the said Act).

Furthermore, the GX Basic Policy was approved in a cabinet meeting on 10 February 2023, which included provisions on (1) the promotion of thorough energy saving, (2) making renewable energy the main power source, (3) the utilisation of nuclear power, (4) the utilisation of hydrogen and ammonia, and (5) the introduction of growth-oriented carbon pricing.

Law stated - 31 August 2023

Main national regulatory policies

Outline recent government policy on climate matters.

The Act on the Promotion of Global Warming Countermeasures was enacted in Japan. It provides the framework for the state, local governments, business operators and the citizens to tackle global warming together. Furthermore, the 2022 revision provides for an approach to decarbonisation utilising local renewable energy and a scheme to promote digitalisation and open data transformation of information on emission by companies.

In addition, with the enactment of the GX Promotion Act in May 2023 under the GX Basic Policy, the government expects to issue GX Economic Transition Bonds and introduce a carbon levy and an emissions trading scheme.

Law stated - 31 August 2023

Main national legislation

Identify the main national laws and regulations on climate matters.

The laws governing basic climate change issues in Japan are currently the Global Warming Countermeasures Act and the GX Promotion Act.

The Global Warming Countermeasures Act is a kind of basic act that provides a framework for the responsibilities of the State, local governments, business operators, and citizens for establishing global warming countermeasures. This Act provides for a system for calculating, reporting and disclosing GHG emissions as the main approach. Furthermore, recent revisions to this Act led to the specification of the goal of 2050 Carbon Neutrality, establishment of plans and certification systems for promoting businesses that contribute to local decarbonisation, and establishment of provisions on digitalisation and open data transformation of information on emissions by companies toward the promotion of decarbonisation management.

The GX Promotion Act provides certain carbon pricing mechanisms, such as carbon levies and a Japanese emission trading scheme (GX Emission Trading Scheme or GX-ETS). For further details of the GX Promotion Act, please refer to our newsletter .

Law stated - 31 August 2023

National regulatory authorities

Identify the national regulatory authorities responsible for climate regulation and its implementation and administration. Outline their areas of competence.

The main authorities regulating climate change are the Ministries of the Environment and of Economy, Trade and Industry. The Global Environment Bureau of the Ministry of the Environment promotes policies of the government as a whole regarding global environment conservation such as the prevention of global warming and protection of the ozone layer.

In addition, the Cabinet has established the Green Transformation Implementation Council and Global Warming Prevention Headquarters (which are led by the Prime Minister of Japan), which sets up expert panels for the promotion of climate change countermeasures and reports on the progress of the global warming countermeasures plan every year.

GENERAL NATIONAL CLIMATE MATTERS

National emissions and limits

What are the main sources of emissions of greenhouse gases (GHG) (or other regulated emissions) in your country and the quantities of emissions from those sources? Describe any limitation or reduction obligations. Do they apply to private parties in your country?

Under the UNFCCC, Japan annually submits a GHG inventory (a list on GHG emissions and removals) to the UNFCCC secretariat.

The GHG emissions and removals in the fiscal year 2021 amounted to 1,122 million tons, which is a 2.0 per cent (plus 21.5 million tons) increase as compared with the fiscal year 2020, and a 20.3 per cent (minus 285.3 million tons) decrease as compared with the fiscal year 2013.

For further details, please refer to the website of the Ministry of Environment .

The breakdown is 94.8 per cent for emissions associated with the combustion of fuels, 4.1 per cent for the use of industrial processes and products, and 1.0 per cent for emissions from the waste sector. The breakdown of emissions associated with the combustion of fuels was 41.8 per cent for the energy sector, 23.5 per cent for the manufacturing and construction sector, 16.8 per cent for the transport sector, and 12.8 per cent for other sectors.

For further details, please refer to the website of the Ministry of Environment .

Based on the calculation, reporting, and disclosure systems for GHG emissions targeted at specified emitters, the aggregated results of GHG emissions for the fiscal year 2019 was reported in December 2022.

Law stated - 31 August 2023

National GHG emission projects

Describe any major GHG emission reduction projects implemented or to be implemented in your country. Describe any similar projects in other countries involving the participation of government authorities or private parties from your country.

The following systems can be listed as the main approach in Japan toward the reduction of GHG emissions.

The first are the systems under the Global Warming Countermeasures Act, which mainly consist of the calculation, reporting, and disclosure systems for GHG emissions. Under the systems, specified emitters that produce significant amounts of GHGs are required to calculate and report their GHG emissions, and the state compiles and publishes the reported information. The Act provides for a non-penal fine (karyo) for failure to report or false reporting.

The second is global warming tax. In Japan, a global warming tax is levied on the use of fossil fuels such as petroleum, natural gas, and coal in proportion to their CO₂ emissions. The tax revenue is used for measures to reduce energy-derived CO₂ emissions, including energy-saving measures, the promotion of the use of renewable energy, and the use of cleaner and more efficient fossil fuels. Specific examples of these measures include: promoting the establishment of facilities for innovative low-carbon technology-intensive industries (eg, the lithium-ion battery business) in Japan, promoting the introduction of energy-saving equipment by small and medium-sized enterprises, and promoting the introduction of renewable energy in line with characteristics of each region via the Green New Deal funds and other resources.

Furthermore, under the GX Promotion Act, it is planned that technical assistance will be provided through the introduction of GX Economic Transition Bonds, a carbon levy, and an emissions trading scheme.

Law stated - 31 August 2023

DOMESTIC CLIMATE SECTOR

Domestic climate sector

Describe the main commercial aspects of the climate sector in your country, including any related government policies.

Under the Global Warming Countermeasures Act, the Guidelines for the Reduction of Greenhouse Gas Emissions was established, which is a set of guidelines providing measures to be implemented by business operators as part of their obligations to make best efforts to reduce GHG emissions.

In addition, the Act on Rationalising Energy Use and Shifting to Non-fossil Energy (the Energy Saving Act) provides for direct regulations and indirect regulations imposed on energy users. More specifically, under the direct regulations, judgment criteria are set, and instructions to prepare and submit rationalisation plans are given to, or obligations to periodically report conditions of use of energy are imposed on specified business operators that are factories, etc. with annual energy use of not less than 1,500 kilolitres if their rationalisation of use of energy is extremely inadequate. Under the indirect regulations, target energy consumption efficiency of items such as automobiles is set for manufacturers, and there is a provision that retailers such as home electrical appliance retailers have obligations to make best efforts to provide information on the energy consumption efficiency of appliances to general consumers.

As stated above, the Energy Saving Act directly regulates energy users by setting judgment criteria, and by giving instructions to prepare and submit rationalisation plans or by imposing obligations to periodically report conditions of use of energy if their rationalisation of use of energy is extremely inadequate.

Furthermore, it is planned that a fossil fuel charge will be imposed on importers of fossil fuels, and charges for electricity generation will be levied on specified electricity generation operators.

Tokyo has established a total emissions reduction obligation and an emissions trading scheme. It is the 'cap-and-trade system' where obligations to reduce GHG emissions are imposed on specific business establishments, and excess emission reductions are traded with emission reduction shortfalls. In the fiscal year 2021, an actual reduction of 33 per cent from baseline emissions was recorded.

Law stated - 31 August 2023

GENERAL GHG EMISSIONS REGULATION

Regulation of emissions

Do any obligations for GHG emission limitation, reduction or removal apply to your country and private parties in your country? If so, describe the main obligations.

The Japanese government has set up a goal of reducing GHG emissions in the fiscal year 2030 under the Paris Agreement from the level of GHG emissions in the fiscal year 2013 (ie, Japan's Nationally Determined Contribution), and declared that it will realise carbon neutrality in the fiscal year 2050.

At the national level, although there is the GX League which is a voluntary system, there is no mandatory cap-and-trade system. At the local government level, there is the aforementioned Tokyo Cap -and Trade Program. Companies are proceeding with measures for voluntary reduction of carbon dioxide in accordance with international initiatives such as CDP and RE100.

GHG emission permits or approvals

Are there any requirements for obtaining GHG emission permits or approvals? If so, describe the main requirements.

Japan does not adopt any licensing or authorisation system regarding GHG emissions.

However, there are systems such as the calculation, reporting, and disclosure of GHG and voluntary goal setting systems under the GX League.

Law stated - 31 August 2023

Oversight of GHG emissions

How are GHG emissions monitored, reported and verified?

The calculation, reporting and disclosure systems for GHG emissions under the Global Warming Countermeasures Act require specified emitters to report GHG emissions. Specified emitters report the information on the previous year's emissions for each business operator, which will be ultimately compiled and published for the public by the Minister of the Environment and the Minister of Economy, Trade and Industry.

In addition, under the Energy Saving Act, specified business operators are obliged to submit periodic reports on their energy use.

Law stated - 31 August 2023

GHG EMISSION ALLOWANCES (OR SIMILAR EMISSION INSTRUMENTS)**Regime**

Is there a GHG emission allowance regime (or similar regime) in your country? How does it operate?

The major carbon credits (Baseline and Credit) in Japan are the (1) J-Credit Scheme and (2) Joint Crediting Mechanism (JCM). (1) The J-Credit Scheme is a scheme managed by the Ministry of Economy, Trade and Industry, the Ministry of the Environment and the Ministry of Agriculture, Forestry and Fisheries, where the state certifies as 'credits', emission reductions in CO₂, etc, achieved through the introduction of energy-saving equipment and the use of renewable energy and removals of CO₂, etc, achieved through adequate forest management. (2) The Joint Crediting Mechanism is a system under article 6, paragraph 2 of the Paris Agreement where credits are granted to CO₂ emission reduction projects implemented in a country which made a separate agreement with the Japanese government.

In addition, under the aforementioned GX League, a voluntary emissions trading scheme (GX-ETS) will start on a preliminary basis in 2023 and on a full-scale basis in or around 2026. GX-ETS is not a cap and trade system in a sense that (1) it is voluntary for each company to participate and (2) no cap (obligation) is imposed on each participant. However, most of major companies in Japan have participated in GX-ETS (the total amount of GHG emissions by all participants will be approximately 40 per cent of the total GHG emissions in Japan) and each of participants is required to submit its GHG emission reduction targets which are consistent with Japanese Government's NDC. In this sense, GX-ETS is a 'de-fact' cap and trade system. In GX-ETS, companies set goals for voluntary emission reductions, and if such goals are not achieved, they are required to acquire emissions allowances (excess emission reductions) or carbon credits of other participants.



Furthermore, under the GX Promotion Act, with respect to specified business operators' contributions, paid allocation and unit price of emissions allowances are to be determined by auction (paid allocation through auction), and an emissions trading scheme is planned to be introduced.

For further details of the carbon off-set credit markets/ regime in Japan, please refer to our newsletters below.

www.amt-law.com/asset/pdf/bulletins12_pdf/230221_en.pdf

www.amt-law.com/asset/pdf/bulletins12_pdf/220629_en.pdf

Law stated - 31 August 2023

Registration

Are there any GHG emission allowance registries in your country? How are they administered?

The J-Credit Scheme includes the J-Credit Scheme Registry System, under which users can open credit management accounts in this registry system, and hold, invalidate, and transfer domestic credits such as J-Credits.

The Joint Crediting Mechanism includes the JCM Registry System, under which companies, etc. intending to acquire, hold, and transfer JCM Credits can open accounts in the JCM Registry in Japan and use the Joint Crediting Mechanism.

It is expected that a new registration system will be established soon in connection with allowances to be issued under GX-ETS.

Law stated - 31 August 2023

Obtaining, possessing and using GHG emission allowances

What are the requirements for obtaining GHG emission allowances? How are allowances held, cancelled, surrendered and transferred? Can rights in favour of third parties (eg, a pledge) be created on allowances?

Under GX-ETS, it is expected that a GX League participant will be able to obtain allowance (GX-ETS Allowance) if such GX League participant will be able to reduce GHG emissions more than its GHG emission reduction target submitted at GX League. Any GX League participant will be able to sell GX-ETS Allowance to another GX League participant that is unable to reduce GHG emissions compared to its GHG emission reduction targets.

In addition to GX-ETS Allowance, there are J-Credits and JCM-Credits, which are basically issued under a baseline and credit system. To create J-Credits under the J-Credit Scheme, it is first necessary to make applications to the state for projects such as the introduction of energy-saving equipment, use of renewable energy, and adequate forest management, and to undergo examinations and obtain approval. Then, the projects are registered following this examination and approval. Only after a report on the projects is submitted and monitoring is conducted may emission reductions in CO₂, etc, and removals of CO₂, etc, be certified as J-Credit.

There are three methods of trading J-Credits, which are via intermediation services by internet service providers, registration in the list on the J-Credit website and participation in the bid selling conducted by the J-Credit Scheme Secretariat.

In addition, in the case of creating credits under the Joint Crediting Mechanism, a project participant first receives confirmation of the validity of the project, and has the project registered. Then, after monitoring and verification of the registered project are implemented, credits are issued.

JCM Credits are used by methods such as making adjustments in the calculation, reporting, and disclosure systems for GHG, and utilisation in international emission reduction systems.

TRADING OF GHG EMISSION ALLOWANCES (OR SIMILAR EMISSION INSTRUMENTS)**Emission allowances trading**

What GHG emission trading systems or schemes are applied in your country?

It is expected that GX-ETS Allowance will play a role similar to allowances under EUETS. In addition to that, there are two baseline and credit systems led by the Japanese government, namely, the J-Credit Scheme and the Joint Crediting Mechanism.

The J-Credit Scheme is essentially a domestic system, where it is assumed that Japanese companies offset their domestic GHG emissions against J-Credits. However, for overseas emission activities deriving from international flights, international navigation, and overseas manufacturing, the J-Credit Scheme can only be utilised in the case of voluntary off-setting. The emissions trading scheme under the aforementioned GX League (GX-ETS) is also essentially a domestic system in Japan. Although foreign companies can participate in the GX League, emissions that will be subject to reporting and trading are their GHG emissions in Japan only.

Japan also implements the Joint Crediting Mechanism. This is a mechanism where Japan provides decarbonisation technology to partner countries and contributes to the reduction of GHG emissions, and then acquires credits according to the quantitative evaluation of such contributions. So far, Japan has signed agreements with 26 countries including Mongolia and Bangladesh and is conducting various related activities. As for JCM Credits, as a system under article 6, paragraph 2 of the Paris Agreement, it is assumed that the Japanese government offsets its emissions against them. In addition, GX League participants are also allowed to offset their emission reductions against JCM Credits.

Law stated - 31 August 2023

Trading agreements

Are any standard agreements on GHG emissions trading used in your country? If so, describe their main features and provisions.

Since the GX League has just started its preliminary operations in April 2023, at present, the contract form for trading carbon credits under the GX League has not been released yet. In the future, there is a possibility that a Japanese law version may be prepared based on the contract forms of IETA/ISDA which are used internationally.

Law stated - 31 August 2023

SECTORAL REGULATION**Energy sector**

Give details of (non-renewable) energy production and consumption in your country. Describe any regulations on GHG emissions. Describe any obligations on the state and private persons for minimising energy consumption and improving energy efficiency. Describe the main features of any scheme for registration of energy savings and for trade of related accounting units or credits.

Production and consumption of non-renewable energy

Japan's energy needs are heavily dependent on natural gas, coal, and oil imported from abroad, and largely consist of

energy produced from such fossil fuels. As a result of the Great East Japan Earthquake that occurred in 2011 and subsequent shutdown of nuclear power plants, consumption of fossil fuels as fuels for power generation replacing nuclear power has increased, the dependency rate on fossil fuels is increasing, and the dependency rate on fossil fuels in the fiscal year 2021 was approximately 83 per cent. As a result of renewable energy being introduced and the operation of nuclear power plants resuming in the power generation sector, the quantity of oil-fired power generation has decreased. For further details, please refer to the website of the Ministry of Economy, Trade and Industry (Japanese language only).

	In crude oil equivalent of 10 thousand kilolitres	Ratio
Oil	17,355	36.0
Coal	12,418	25.8
Natural gas, city gas	10,326	21.4

Viewing the composition of power sources (power generation quantity), in the fiscal year 2021, the amount of power generation by natural gas was 3,558 hundred million kilowatt-hours, which accounted for approximately 34 per cent of the total and made up the largest portion. The amount of power generation by coal following natural gas was 3,202 hundred million kilowatt-hours which accounted for approximately 31 per cent of the total. Power generation by oil was 767 hundred million kilowatt-hours which accounted for 7 per cent of the total.

GHG emissions and regulations

Domestic GHG emissions in the fiscal year 2021 was approximately 1,122 million tons, which was an approximately 2 per cent increase from the previous year. One of the causes is thought to be increase in energy consumption owing to the economic recovery from the covid-19 pandemic. Compared with the fiscal year 2019, the emission amount has reduced by about 3 per cent, which shows some progress. For further details, please refer to the website of the Ministry of Economy, Trade and Industry (Japanese language only).

From the perspective of regulation, under the Global Warming Countermeasures Act, those who emit a large amount of GHG (also known as 'specified emitters') are obliged to calculate and report to the state their own GHG emission amounts, and the state must compile and publish the reported information.

A similar regulation is the reporting system under the Energy Saving Act. This system sets regulations for business operators that fulfil certain standards, such as business operators with annual energy use in crude oil equivalent of not less than 1,500 kilolitres and freight carriers owning not less than 200 trucks. The regulations include obligations for making periodic reports on conditions of energy use, preparing and submitting medium to long-term plans concerning energy saving efforts, and establishing energy management systems in factories.

Law stated - 31 August 2023

Other sectors

Describe, in general terms, any regulation on GHG emissions in connection with other sectors.

Global warming tax

From 1 October 2012, a 'global warming tax' came into force in phases. The purpose of the global warming tax is to impose a fair tax burden broadly and thinly with respect to the use of all fossil fuels including oil, natural gas and coal

in accordance with their environmental burden. Specifically, the tax rate per unit amount (kilolitres or tons) is set by using CO2 emission intensity for each type of fossil fuel, so that the tax burden for each type of fossil fuel will be equal to 289 yen per ton of CO2 emissions. On 1 April 2016, the increase in the tax rate was completed and the final tax rate was set at the rate that was initially planned at the time of introducing the global warming tax. It is expected that, by utilising this tax revenue, various measures to reduce energy-derived CO2 emissions such as energy-saving measures, the promotion of the use of renewable energy, and the use of cleaner and more efficient fossil fuels will be steadily implemented.

Fluorocarbon Emissions Control Act

The Act on Rational Use and Proper Management of Fluorocarbons (Fluorocarbon Emissions Control Act) is an act on the reduction of fluorocarbons and prevention of fluorocarbon leakage to restrain fluorocarbon emissions. The Act requires business operators that manufacture and import fluorocarbons to take measures to (1) lower the global warming potential (GWP) of manufactured or imported fluorocarbons and substitute them with other substances, (2) construct facilities necessary for the manufacturing of alternative gases, conduct improvements in technology, and capture, destroy and recycle fluorocarbons.

Law stated - 31 August 2023

RENEWABLE ENERGY AND CARBON CAPTURE

Renewable energy consumption, policy and general regulation

Give details of the production and consumption of renewable energy in your country. What is the policy on renewable energy? Describe any obligations on the state and private parties for renewable energy production or use. Describe the main provisions of any scheme for registration of renewable energy production and use and for trade of related accounting units or credits.

Responsibilities to be borne by the state and the private sector

While aiming to achieve 2050 Carbon Neutrality, in the Sixth Strategic Energy Plan, which was approved in a cabinet meeting in October 2021, Japan has set up a goal of achieving an ambitious renewable energy ratio of approximately 36 per cent to 38 per cent in the power sources as a standard based on the GHG emission reduction goal for the fiscal year 2030.

At the local government level, Tokyo has established a system that makes it compulsory to install solar power generation facilities in newly constructed houses, and to ensure thermal insulation performance and energy saving performance. Other local governments also have established or are considering the establishment of similar systems.

Production of renewable energy

The production of renewable energy (including hydroelectric power generation) is on the increase year by year. Specific figures are 18.2 per cent for the fiscal year 2019, 19.8 per cent for the fiscal year 2020, and 20.3 per cent for the fiscal year 2021. Of the figure for the fiscal year 2021, solar power generation accounted for 8.3 per cent, which, together with the 0.9 per cent for wind power generation, makes the ratio of variable renewable energy (VRE) more than 9 per cent. The ratio of solar power generation has increased from the previous year's figure of 7.9 per cent, which is also higher than the ratio of hydroelectric power generation.

Renewable energy policy

Among the measures for promoting renewable energy, the FIT scheme has been playing a central role. The FIT scheme is a scheme under the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities (Renewable Energy Special Measures Act), which came into force from July 2012, and obliges power companies to purchase electricity produced from renewable energy at the unit price set by the state over a certain period. Through this system, even if the market price of electricity changes, an electricity generation utility may earn fixed electricity sales proceeds.

In addition, in April 2022, a new FIP scheme started. While the purchase price under the FIT scheme is fixed in any situation, the purchase price under the FIP scheme is linked to the market price. Under the FIP scheme, the purchase price will be higher if electricity is sold when the demand is low as compared to the case where electricity is sold when demand is high.

As a system to enable trading of the 'environmental value' of the electricity purchased under the FIT scheme, non-fossil certificates were introduced in 2018. This is a system to extract 'environmental value' (also called non-fossil value) from the electricity generated from 'non-fossil power sources' (meaning power sources that do not use fossil fuels) such as oil and coal, and to turn the value into certificates and trade them. Non-fossil certificates are managed under Japan Electric Power Exchange (JEPX)'s non-fossil certificate trading system. Initially when this system was introduced, the attribute information (such as the type of power source and the location of the power plant) of the power source from which the non-fossil certificates were derived was not given. Thus, to enable non-fossil certificates to be utilised for the reporting obligation under 'Renewable Energy 100 per cent' (RE100), in November 2021, procedures for providing the attribute information of the power source from which the non-fossil certificates were derived (tracking system) were introduced.

Carbon credits

The major carbon credit schemes implemented in Japan are the Joint Crediting Mechanism and J-Credit Scheme. The latter (J-Credit Scheme) is a scheme developed by integrating the domestic credit scheme and the Offsetting Credit (J-VER) Scheme, and is operated by the state.

In addition to these schemes, in 2023, the GX League and GX-ETS have been launched. Under the GX League, it is expected that full-scale CO2 emissions trading will be conducted in the future. (Until 2025, CO2 emissions trading will be implemented experimentally.)

Law stated - 31 August 2023

Wind energy

Describe, in general terms, any regulation of wind energy.

General remarks

Wind power generation is subject to the application of the FIT scheme and the FIP scheme.

Since wind power generating facilities may cause damage such as noise and bird strikes, conducting environmental impact assessments under the Environmental Impact Assessment Act is compulsory. Examination is conducted on the noises heard during construction and after commencement of the operation of the facility, in addition to the facility's impact on animal ecosystem and on landscapes.

To address the issues surrounding wind power generation, a zoning method is effective. Under the zoning method, environmental information is compiled, and the area where the introduction of wind power generation may be

promoted through coordination among persons concerned and relevant organisations and the area where environmental conservation is prioritised are designated in advance. Zoning also has the characteristic of a strategic environmental assessment (SEA: Strategic Environmental Assessment) and could also be evaluated as being a measure for avoiding significant environmental impact from the early stage of the plan. From 2016, the Ministry of the Environment has been conducting model projects of this zoning and organised the zoning methods based on the findings from the model projects. Then, in 2018, the Ministry compiled and released the 'Local Governments' Zoning Manual on Wind Power Generation'. The Manual is targeted at local governments and systematically describes the methods of preparation, consensus building and utilisation of zoning maps.

With regard to the safety of windmills, confirmation used to be conducted by the Ministry of Land, Infrastructure, Transport and Tourism in accordance with the Building Standards Act and by the Ministry of Economy, Trade and Industry in accordance with the Electricity Business Act. The matters confirmed by the two ministries were summarised, and in April 2014, the procedures were unified into those under the Electricity Business Act. Currently, wind power generation facilities are designated facilities excluded from the application of the Building Standards Act.

In addition, there is a regulation that a wind power generating facility that fulfils the requirements specified in the Civil Aeronautics Act must have obstacle lights and obstacle markings installed.

Offshore wind power

Toward the high goal of '2050 Carbon Neutrality', Japan has announced the Green Growth Strategy (Green Growth Strategy Through Achieving Carbon Neutrality in 2050), as a measure for transforming the industry structure and significantly developing a society and economy while protecting the environment by encouraging private enterprises to make bold innovations and actively introducing and expanding 'green energy'. Offshore wind power generation is one of the 'next-generation renewable energies' which is a priority area under Green Growth Strategy.

In April 2019, the Act on Promoting the Utilisation of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities (Renewable Energy Sea Area Utilisation Act) came into force. As a result, rules with respect to the exclusive occupancy in general sea areas and a framework for coordination with existing users were prepared, and it was decided that unified rules will be established with respect to the installation of offshore wind power generation facilities in general sea areas.

Under the Renewable Energy Sea Area Utilisation Act, a mechanism is incorporated whereby the Minister of Economy, Trade and Industry and the Minister of Land, Infrastructure, Transport and Tourism firstly designate certain sea areas as 'promotion zones for the development of marine renewable energy power generation facilities' (Promotion Zones) for conducting offshore wind power generation. The ministers also appoint through a public tender system the business operators that exclusively occupy these zones to conduct electricity generation and determine the FIT price. The maximum period of occupancy permission for appointed business operators is 30 years. Furthermore, in consideration of the fact that the useful life of the parts of offshore wind power plants is about 30 to 35 years, there is a discussion on presenting the basic idea as to in what cases the permission for exclusive occupancy under the Renewable Energy Sea Area Utilisation Act is renewed.

As for offshore wind power generation business in general sea areas, there are descriptions in the 'Guidelines for Promotion Zones for the Development of Marine Renewable Energy Power Generation Facilities'. The guidelines expressly state that the appropriate way to implement offshore wind power generation businesses in zones of a certain size where power generation facilities can be installed and in zones that may be designated as Promotion Zones in the future is, in principle, for the state and municipalities to collaboratively implement according to the Renewable Energy Sea Area Utilisation Act, rather than to implement the businesses under the permission for exclusive occupancy in accordance with prefectural ordinances.

Law stated - 31 August 2023

Solar energy

Describe, in general terms, any regulation of solar energy.

Solar power generation is subject to the application of the FIT scheme and the FIP scheme.

Solar power generation facilities were not subject to the Environmental Impact Assessment Act until 2020. However, it was pointed out that, if land development is not appropriately designed upon installation of solar panels, there is a risk that disasters such as sediment discharge may be triggered. Then, the Environmental Impact Assessment Act was revised. As a result, it became compulsory for solar power generation operators generating electricity of not less than 30MW to conduct environmental impact assessments. At present, the 'Environmental Consideration Guidelines for Solar Power Generation' released by the Ministry of the Environment point out that it is desirable that solar power generation facilities for business use generating electricity of not less than 10kW give consideration to residents of neighbouring communities and the environment. After the introduction of the FIT scheme, entries into solar power generation business through use of this scheme have increased sharply.

The procurement period under the Renewable Energy Special Measures Act of solar power generation facilities generating electricity of not less than 10 kilowatts is 20 years, and this affects the right to use the site. In consideration of the fact that it takes several years to prepare, including installation of solar panels, unless the owner of the land for installation of the solar panels conducts the business, it is desirable to acquire a right of use which enables use for 20 years or more. Thus, operators of such facilities will either execute a lease agreement with the owner of the land or have a superficies right established on the land. When installing solar panels, land development is required in most cases. If land development is not designed appropriately, there is a risk that disasters such as rainwater outflow to surrounding areas, sediment discharge, and landslides may be triggered, which may make it difficult to continue business. The Regulations for Enforcement of the Renewable Energy Special Measures Act provide that land development must be designed in accordance with the provisions of relevant laws and regulations and local ordinances.

Since the FIT scheme commenced, the introduction of renewable energy was promoted with a focus on solar power generation. Meanwhile, it is expected that the disposal of solar panels will reach its peak in the late 2030s, and it is required to take measures systematically to adequately address this situation. In light of these circumstances, by revising the Renewable Energy Special Measures Act in April 2022, a system for accumulating funds for the disposal of solar panels was set up. At present, the obligation for accumulating funds is imposed on all solar power generation facilities generating electricity of not less than 10 kilowatts. In addition, for waste disposal operators to be aware of information on the hazardous substances contained in solar panels and to be able to conduct disposal in an appropriate manner, the Waste Management and Public Cleansing Act (Waste Management Act) provides that industrial waste generating business operators must provide waste disposal operators with information necessary for the appropriate treatment of the properties of wastes.

In addition, with regard to the designing of power generation facilities, a technical standards conformity obligation is imposed on solar power generation operators under the Electricity Business Act (and the Building Standards Act). Thus, if solar power generation operators request a third party to conduct the design operations, solar power generation operators are required to confirm on their own responsibility whether the power generation facilities conform to technical standards. In 2021, in consideration of the increase in solar power generation facilities and the diversification of their forms of installation, the Ministry of Economy, Trade and Industry enacted the 'Ministerial Order to Provide Technical Standards for Solar Power Generation Facilities' as the new technical standard focused on solar power generation facilities so that solar power generation operators can flexibly and swiftly align with private standards and certification systems.

Law stated - 31 August 2023

Hydropower, geothermal, wave and tidal energy

Describe, in general terms, any regulation of hydropower, geothermal, wave or tidal energy.

Hydroelectric power generation

Hydroelectric power generation accounts for approximately 8 per cent of the power sources in Japan. Prior to the oil crisis (1973), development proceeded with a focus on large-scale hydroelectric power generation (larger facilities have power generation capacity exceeding 1 million kilowatts) to meet the rapidly increasing electricity demand. Now in the 21st century, the focus is on the development of small and medium-sized power plants (with average power output of approximately 4,500 kilowatts).

To introduce small and medium-sized hydroelectric dams, the construction of small and medium-sized hydroelectric power plants that utilise existing dams should be promoted. However, if power generation facilities will be installed in multipurpose dams operated by the State by newly acquiring the right of use of these dams, an appropriate amount of the expenses required for the construction of the dams must be paid to the state (article 27 of the Act on Specified Multipurpose Dams). On the other hand, in the case of power generation facilities installed in dams operated by a person other than the state (such as prefectures), the River Act provides that the sharing of expenses for the construction of the dams will be determined by mutual consultations among the persons concerned.

To install hydroelectric power generation facilities (mainly small-sized hydroelectric power generation facilities with power output of less than 1,000 kilowatts) utilising river water, it is necessary to obtain permission from the river administrator. In the case where permission to use river water as agricultural water and tap water has been obtained from the river administrator prior to the installation of power generation facilities and where the river water will also be used for hydroelectric power generation, a registration system is adopted, instead of a licensing system.

At present, the application of the FIT scheme is limited to hydroelectric power generating facilities with power output of less than 1,000 kilowatts that fulfil the requirements for utilisation in local communities. Thus, hydroelectric power generation facilities with power output of not less than 1,000 kilowatts can only use the FIT scheme. Requirements for utilisation in local communities are requirements for obtaining FIT certification and are imposed for the purpose of promoting utilisation of self-consumption or utilisation by the local community as a whole.

Geothermal power generation

Geothermal power generation is one of the 'next-generation renewable energies' which is a priority area under the Green Growth Strategy. Geothermal power generation is also subject to the application of the FIT scheme and the FIP scheme. The application of the FIT scheme is limited to geothermal power generating facilities that fulfil requirements for utilisation in local communities with power output of less than 1,000 kilowatts. Thus, geothermal power generation facilities with power output of not less than 1,000 kilowatts can only use the FIP scheme.

Among the new business operators that started after the fixed price purchase system was established, some do not always have a good understanding of the spread of underground geothermal resources when conducting development, which raises concerns that such development affects existing geothermal power plants and neighbouring hot springs. For such concerns, local governments can effectively avoid such circumstances by also utilising local ordinances and councils. In this regard, the Agency for Natural Resources and Energy has disclosed the judgment criteria, which may be used as the baseline for confirming the appropriateness of the development plan.

In addition, underground resources (hot springs) will be utilised when carrying out excavation. This means that the excavation will be subject to restrictions under the Hot Springs Act, and it is necessary to obtain permissions or authorisations from prefectural governors.

In addition, in Japan, it is often the case that geothermal resources are in national parks, quasi-national parks, or natural parks, and there are cases where permission must be obtained from the Minister of the Environment or prefectural governors as provided in the Natural Parks Act.

Tidal power generation

While efforts toward practical use are made in Japan, tidal power generation has not reached commercialisation at present since in practice, it is difficult to construct power plants that are cost-effective. This is because the cost for tidal power generation depends to a large extent on the topography and it is considered that suitable lands are concentrated mostly in western Japan, which means that the places where large turbines can be installed will be even more limited, if they are to be installed on such land.

To install tidal power generation facilities in fisheries zones, it is necessary that various laws such as the Fishery Act and the Act on the Protection of Marine Resources are complied with. Under the Fishery Act, if fishery rights are restricted by constructions for public works projects such as landfilling, it is necessary to compensate fishery operators. Thus, expenses other than the costs for installation and operation need to be discussed.

Law stated - 31 August 2023

Waste-to-energy

Describe, in general terms, any regulation of production of energy based on waste.

While there are several types of waste power generation, the basic structure of most waste power generation methods is that electricity is generated by spinning turbines driven by steam generated from the heat generated by the incineration of wastes. As a result of full liberalisation of electricity retailing under the revised Electricity Business Act starting from April 2016, the types of electricity businesses were reviewed, and facilities that transmit electricity utilising electrical systems came to be treated as 'power plants' even if they are waste incineration plants. Furthermore, as a result of this revision, such facilities, in principle, became subject to the system of balancing with the planned value (keikakuchi doji doryo seido), whereby electricity generation and transmission is conducted in accordance with the planned transmission amount. In addition, these facilities came to be positioned as 'electricity generation utilities' under laws and regulations, subject to the fulfilment of certain requirements. Therefore, a business operator operating a waste incineration plant that falls under the definition of an electricity generation utility is required to file a notification with the Minister of Economy, Trade and Industry under the Electricity Business Act and must submit a supply plan. Furthermore, the business operator is obliged to follow the orders of the Minister of Economy, Trade and Industry, such as in cases where transmission line end power cannot be secured and it is impossible to follow supply orders for reasons such as periodic inspections or the small amount of waste.

With regard to waste biomass power generation, if waste biomass falls under the definition of 'wastes' as stipulated under the Waste Management Act, strict regulations under the Waste Management Act will be imposed.

Law stated - 31 August 2023

Biofuels and biomass

Describe, in general terms, any regulation of biofuel for transport uses and any regulation of biomass for generation of heat and power.

In 2009, the Basic Act on the Advancement of Utilising Biomass came into force, under which the state has developed the 'Basic Plan for Advancement of Biomass Utilisation'. The plan requires each prefecture to endeavour to develop its

own 'biomass utilisation advancement plan'.

Biomass power generation is subject to application of the FIT scheme and the FIP scheme. In order to use the FIT scheme and the FIP scheme, it will usually suffice to obtain certification from the Minister of Economy, Trade and Industry. However, in the case where electricity generation subject to the scheme is biomass power generation, the Minister of Economy, Trade and Industry must consult with the Minister of Agriculture, Forestry and Fisheries, the Minister of Land, Infrastructure, Transport and Tourism or the Minister of the Environment in advance (article 9, paragraph 5). Furthermore, under the Regulations for the Enforcement of the Renewable Energy Special Measures Act, additional requirements are imposed on the certification of biomass power generation business plans, as well as the requirements for the certification of ordinary electricity generation business plans. For example, to obtain certification, it is a requirement to periodically calculate the ratio of biomass for the relevant generation more than once a month and to enter the ratio of biomass and the basis of calculation thereof in the books (article 5, paragraph 1, Item 11, sub-item (a) of the Regulations for Enforcement of the Renewable Energy Special Measures Act).

As to biomass fuel, FIT certification utilising imported wood is on the rise. Under the FIT scheme and the FIP scheme, only wood logged in accordance with laws is certified as fuel. Thus, upon making an application for certification, it is necessary to certify that wood and wood products whose sustainability (legality) is proven are used in the system concerning fuels procurement. Specifically, certification through the forest certification system (a system for an independent third-party organisation to conduct certification based on certain standards of woods or management organisations where or by which appropriate or sustainable forest management is conducted) or CoC (Chain of Custody) certification system (a system for a third-party organisation to evaluate and certify business operators that deal in wood and wood products in terms of the appropriate separated management of wood and wood products made from wood logged from certified forests so that they will not be mingled with those made from wood logged from forests without certification) is required. As to the details of the certification, the Forestry Agency has published the 'Guidelines for Verification on Legality and Sustainability of Wood and Wood Products'.

Law stated - 31 August 2023

Carbon capture and storage

Describe, in general terms, any policy on and regulation of carbon capture and storage.

The storage of carbon dioxide under the seabed is restricted by the '1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972' (also known as the London Protocol). Since Japan is a party to the London Protocol, it is required to comply with the same. The 'Act on the Prevention of Marine Pollution and Maritime Disaster' (Marine Pollution Prevention Act) was revised in 2007, which regulates compliance with the London Protocol under domestic law. Under the provisions of the said Act, a person intending to dispose of CO₂ on the seabed must obtain permission from the Minister of the Environment and must monitor the marine environment when disposing of CO₂ on the seabed after obtaining permission.

Under the said Act, the 'Tomakomai CCS Demonstration Business', which is the first large scale CCS demonstration project in Japan with the purpose of conducting utility-scale CCS (Carbon dioxide Capture and Storage), commenced. Then, in November 2019, the large-scale CCS demonstration in Tomakomai achieved its goal of a total CO₂ injection amount of 0.3 million tons. About three years thereafter, in October 2022, the industry submitted an urgent proposal requiring the development of business regulations on CCS. Subsequently, in March 2023, the Agency for Natural Resources and Energy of the Ministry of Economy, Trade and Industry decided to launch a subcommittee to discuss the details of the bill to develop the environment for CCS businesses, titled the 'CCS Business Act (tentative name)', and is aiming to submit the bill at an extraordinary Diet session in autumn 2023.

From an international perspective, Japan has judged that the promotion of CCUS (Carbon dioxide Capture, Utilisation and Storage) in Asia has great significance, and the then Minister of Economy, Trade and Industry presented a proposal

to launch the 'Asia CCUS Network' at the energy ministers' meeting of the 'East Asia Summit (EAS)' held in November 2020. Based on this proposal, at the 'First Asia CCUS Network Forum' held in June 2021, the 'Asia CCUS Network' was launched as the platform for the utilisation of CCUS across Asia.

Law stated - 31 August 2023

CLIMATE MATTERS IN TRANSACTIONS

Climate matters in M&A transactions

What are the main climate matters and regulations to consider in M&A transactions and other transactions?

A typical example of ESG factors is climate change. Since ESG factors have come to be used as one of the factors considered by institutional investors when making investment decisions, companies' efforts at implementing measures against climate change are now linked to their reputations.

In June 2022, the Working Group on Corporate Disclosure of the Financial System Council of the Financial Services Agency published a report on corporate disclosure which included sustainability disclosure (DWG Report). With regard to climate change, the DWG Report proposes that companies should make disclosures on their measures to combat climate change within the framework of 'governance', 'strategy', 'risk management', 'metrics and targets' if they determine that it is important to take measures for climate change.

In January 2023, the Cabinet Office Order on Disclosure of Corporate Affairs was revised. As a result, it has become compulsory for companies to disclose non-financial information that includes climate risks starting from the Annual Securities Report for the business year ending on or after 31 March 2023.

Furthermore, there has been an increase in cases where ESG due diligence (ESGDD) is conducted in the deal process of M&A. Since this makes it possible to proceed with ESG Value Creation (ie, increase in business value and shareholder value that are achieved by promoting breakthrough measures on ESG) at an early stage after the acquisition, ESGDD is an important factor to be taken into consideration.

Law stated - 31 August 2023

UPDATE AND TRENDS

Emerging trends

Are there any emerging trends or hot topics that may affect climate regulation in your country in the foreseeable future?

In October 2020, the Japanese government declared that it will achieve carbon neutrality, meaning net zero GHG emissions by 2050, and the approaches towards its realisation have been accelerated. Furthermore, the Sixth Strategic Energy Plan sets up the goal of aiming to achieve approximately 36 per cent to 38 per cent as the ratio of renewable energy in Japan's power sources, which is of an ambitious level set in consideration of the GHG emission reduction goal for the fiscal year 2030. Local governments are highly interested in carbon neutrality, and as of March 31, 2023, more than 930 local governments (the population of the area covered by these local governments accounts for 99.7 per cent of Japan's total population) have announced that they 'aim to achieve zero carbon by 2050'.

The revision of the Renewable Energy Special Measures Act (introduction of the FIP scheme) presented above, together with the revision of the Act on Promotion of Global Warming Countermeasures (disclosure of GHG emissions of companies), can be regarded as the latest law revisions aimed at decarbonisation. In addition, the 'Act on the Improvement of Energy Consumption Performance of Buildings' (Buildings Energy Saving Act) whose purpose is to

curb the consumption energy of buildings has also been revised, and it will be compulsory, in principle, for all newly constructed houses and non-residential buildings to conform to the energy-saving standards stipulated under the Buildings Energy Saving Act.









Moreover, according to an analysis conducted by the Ministry of Economy, Trade and Industry, in order to achieve 2050 Carbon Neutrality, it will require investments by the government and the private sector in Green Transformation of more than 150 trillion yen in the next 10 years. Then, in May 2023, for the purpose of promoting Green Transformation, the GX Promotion Act was enacted. The provisions of the said Act include the following:

- promotion of energy transition by making renewable energy the main power source, utilising nuclear power, and promoting introduction of hydrogen and ammonia;
- issuance of GX Economic Transition Bonds to implement support for a bold upfront investment of approximately 20 trillion yen; and
- introduction of a carbon pricing system including an 'emissions trading scheme', 'phased introduction of paid allocations through auction to electricity generation utilities', and a 'carbon levy'.

GX is positioned as part of Japan's strengthening of future industrial competitiveness and economic growth strategy. It is expected that the government and the private sector will together make further investments in the future, accompanied by an increase in business opportunities.

Law stated - 31 August 2023

Jurisdictions

	European Union	Allen & Overy LLP
	France	Huglo Lepage Avocats
	India	Shardul Amarchand Mangaldas & Co
	Indonesia	SSEK Law Firm
	Japan	Anderson Mōri & Tomotsune
	Malta	Camilleri Preziosi
	Taiwan	Lee and Li Attorneys at Law
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