**The Institute of
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Economic and energy outlook of Japan for FY2026

Seeking a new equilibrium amid unstable circumstances

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Reference Scenario ❖ Summary

Macro economy | The Japanese economy will continue its modest expansion in fiscal year 2026, growing by 0.9%. Slowing inflation will ease households' thrift mindset, supporting consumption. While capital investment continues to increase, factors such as uncertainty about the future, slowing exports and rising interest rates could function as restraints.

Real gross domestic product (GDP) will show resilience, growing at a rate of 0.9% for the second consecutive year. As households gradually adapt to inflation, the slowdown in price rises will underpin consumption. Businesses are encouraged to invest in productivity improvements and addressing labour shortages. Nevertheless, private demand will still decelerate somewhat. The only component accelerating from FY2025 is private residential investment, which is currently experiencing a significant decline due to the impact of amendments to the Act on the Improvement of Energy Consumption Performance of Buildings (Building Energy Conservation Act). Concerns surrounding private non-residential capital investment include US tariff policies, labour shortages, rising material and equipment prices and interest rates, and relations with China. Regarding external demand, the slowdown in import growth will provide a tailwind for GDP. However, export growth will be at its lowest level since the onset of the COVID-19 pandemic, falling short of import growth. Consequently, external demand will make a negative contribution for the third consecutive year.

The indices of industrial production (IIP) will rise by 1.1%, marking its second consecutive annual increase for the first time in nine years, driven by increased production in sectors such as electrical machinery amid the boom in digital transformation (DX) and artificial intelligence (AI). However, the impact of reduced exports to the US continues to affect automobile production. Furthermore, production of energy-intensive materials will be generally sluggish. Exports will be squeezed by China's overproduction, with crude steel production falling below 80 Mt for the first time since FY1968 and ethylene production dipping below 5 Mt once again.

Consumer prices will rise by around 3% for four consecutive years until FY2025. However, in FY2026, despite upward pressures such as the pass-through of wage increases, the rate of increase will slow to 1.9%—below 2% for the first time in five years—due to factors including falling international energy prices and a correction in the weak yen.

Energy consumption | The decrease attributable to the cooler summer will exceed the increase from production growth centred on low-energy-consumption processing and assembly industries, resulting in an overall decrease of 0.7%. Whilst CO_2 reduction continues, concerns about falling behind the 2030 target are growing further.

A significantly cooler summer than the previous year, coupled with reduced energy consumption due to factors such as decreased production of raw materials, will outweigh the increase attributable to falling energy prices and the gradual expansion of economic and production activities. Primary energy supply will fall below 400 million tonnes of oil equivalent (Mtoe) for the first time in 40 years. Despite the overall decline in consumption, non-fossil fuels will increase due to expanded solar photovoltaics and the restart of nuclear

power plants. Consequently, fossil fuels—oil, coal and natural gas—all will fall below the previous year's levels for the fifth consecutive year. Liquefied natural gas (LNG) imports will decline to 58.6 Mt, the first time they have been in the 50 Mt range since FY2005. Improving energy efficiency (GDP intensity) is a key global challenge. Despite the tailwind of a cooler summer compared to the previous year, the rate of improvement will slow to 1.5%, the lowest since FY2020.

Table 1 | Summary for the Reference Scenario

		Historical			Projection		Changes		
		FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
Energy	Primary energy supply (Mtoe)[1]	422.4	410.1	405.4	402.0	399.2	-1.1%	-0.8%	-0.7%
	Oil[2] (GL)	172.9	164.6	157.7	157.0	155.7	-4.2%	-0.4%	-0.9%
	Natural gas[2] (Mt of LNG-eq.)	70.4	67.9	66.9	65.1	59.9	-1.5%	-2.8%	-8.0%
	Coal[2] (Mt)	177.1	166.1	165.4	162.9	162.1	-0.4%	-1.5%	-0.5%
	Nuclear (TWh)	53.5	80.3	89.3	93.3	106.2	11.3%	4.4%	13.9%
	Renewable power[3] (TWh)	223.1	232.4	239.4	252.0	262.0	3.1%	5.2%	4.0%
	FIT, etc. power sources (TWh)	185.9	197.2	209.4	221.2	233.6	6.2%	5.6%	5.6%
	Self-sufficiency ratio	12.6%	15.3%	16.4%	17.6%	19.2%	1.1p	1.2p	1.6p
	Electricity sales (TWh)	822.2	809.4	822.8	821.8	805.9	1.7%	-0.1%	-1.9%
	City gas sales[4] (Bcm)	38.61	36.66	36.88	36.95	37.41	0.6%	0.2%	1.3%
	Fuel oil sales (GL)	150.8	144.6	138.1	138.0	137.3	-4.5%	0.0%	-0.5%
	Energy-related CO_2 emissions (Mt)	961	921	908	886	868	-1.4%	-2.4%	-2.1%
	(vs. FY2013)	-22.2%	-25.4%	-26.5%	-28.3%	-29.8%	-1.1pt	-1.7pt	-1.5pt
Import prices	Crude oil, CIF ($/bbl)	103	86	82	69	57	-4.3%	-15.7%	-18.0%
	LNG CIF ($/MBtu)	18.0	12.5	11.9	10.6	8.8	-5.3%	-10.5%	-16.7%
	Steam coal, CIF ($/t)	360	195	151	122	127	-22.6%	-18.9%	3.3%
	Coking coal, CIF ($/t)	339	247	203	160	170	-17.9%	-21.0%	5.8%
Economy	Real GDP (¥2020 trillion)	584.3	584.0	586.9	592.4	597.7	0.5%	0.9%	0.9%
	Indices of industrial production (CY2020=100)	104.9	102.9	101.4	102.2	103.4	-1.4%	0.8%	1.1%
	Trade balances (¥ trillion)	-22.1	-6.2	-5.4	-1.3	-0.4	-13.2%	-74.8%	-67.4%
	Fossil fuel imports (¥ trillion)	35.3	26.0	25.1	20.8	17.3	-3.6%	-16.9%	-17.0%
	Exchange rates (¥/$)	135.0	143.8	152.6	149.6	147.0	6.1%	-2.0%	-1.7%
	Consumer price index (CY2020=100)	103.2	106.2	109.5	112.6	114.7	3.1%	2.9%	1.9%
Temperature	Cooling degree-days (degree Celsius-days)	506	614	648	694	422	5.6%	7.0%	-39.1%
	Heating degree-days (degree Celsius-days)	850	843	916	947	969	8.6%	3.3%	2.4%

Notes: 1. Mtoe stands for Mt of oil equivalent (= 10^{13} kcal). 2. Oil is converted at 9 139 kcal/L until FY2022 and at 9 105 kcal/L from FY2023. LNG is converted at 13 068 kcal/kg until FY2022 and at 13 065 kcal/kg from FY2023. Steam coal is converted at 6 231 kcal/kg until FY2022 and at 6 181 kcal/kg from FY2023. Coking coal is converted at 6 866 kcal/kg until FY2022 and at 6 893 kcal/kg from FY2023.
3. Includes large-scale hydro. 4. Converted at 10 421 kcal/m³ until FY2022 and at 10 366 kcal/m³ from FY2023.

Energy-related carbon dioxide (CO_2) emissions will fall below the previous year's level for the fifth consecutive year, reaching 868 Mt. However, the 2.1% reduction rate is only about two-thirds of the 2.9% average for the FY2013–FY2023 period. Compared to FY2013, emissions will decrease by 29.8%, heightening concerns about delayed progress towards the FY2030 target (a 45% reduction). The self-sufficiency rate will improve at an accelerated pace, rising by 1.6 percentage points (pt) to 19.2%, just 1pt below the FY2010 level (20.2%) recorded before the impact of the Great East Japan Earthquake.

Renewable power generation | FIT and other power generation capacity will expand to 117 GW by the end of FY2026.

The installed capacity of power sources eligible for the Feed-in Tariff (FIT) scheme and similar programmes (including those that have completed the FIT period and those under power purchase agreements [PPAs]) will

reach 116.8 GW. Electricity generated from FIT-eligible sources will reach 233.6 TWh, accounting for 23% of total electricity generated (of which solar photovoltaics: 105.3 TWh, 11%). However, the trend of slowing expansion, which has become pronounced in recent years, continues.

Energy sales | Electricity and fuel oil sales will level off or decline. Meanwhile, city gas sales will increase for the fourth consecutive year, with the rate of increase also expanding.

Electricity sales volume will decline by 1.9% (a 3.6% decrease for lighting services and a 1.1% decrease for power services) due to factors such as reduced space cooling demand from a cooler summer and decreased production in the power-intensive steel and other industries, marking significant drops. This will result in the lowest volume since the full retail liberalisation in FY2016, at 805.9 TWh. In the electricity generated and received mix, whilst non-fossil fuel sources will exceed 40%, LNG will relinquish its long-held position as the largest source to coal, which will see a relatively smaller decrease.

Fuel oil sales volume in FY2025 will remain largely flat, partly due to the low base effect in FY2024, before returning to a downward trend in FY2026. That said, the 0.5% decline rate is relatively modest compared to the period prior to FY2024. For gasoline, the increase impact of the abolition of the provisional gasoline tax rate will outweigh the decrease impact of improved vehicle fuel efficiency and the spread of hybrid vehicles. Although temporary and only a slight increase, this marks the first consecutive two-year increase since FY2010. Diesel oil will increase for the second consecutive year, driven by increased freight movement due to production recovery, alongside the impact of the provisional tax rate abolition, similar to gasoline. Jet fuel oil will remain largely flat, as the recovery in domestic air travel demand post-COVID-19 pandemic has run its course. Conversely, naphtha will decrease due to reduced ethylene production resulting from plant consolidation and increased scheduled maintenance. Kerosene and heavy fuel oil will decline due to fuel switching and other factors.

Unlike declining electricity and fuel oil sales, city gas sales volume will increase by 1.3%, marking the third consecutive year of growth. While this appears robust at first glance, it remains below the level recorded in FY2020, when economic and social activities were severely constrained by the COVID-19 pandemic. A cooler summer will stimulate water heating demand, with 1.1% of contributions to total sale increase by sales for households, most significant one. Sales for industries will see their first increase in five years, as growth in sales for general industries, boosted by expanding production activities, will outweigh a decline in those for power generation. Conversely, sales for commercial will fall by 1.4%, dipping below the previous year's level for the first time in six years, reflecting reduced space cooling demand.

Topics ❖ Summary

The economic and energy impacts of wage increases

The scheduled monthly wages (based on the 'Monthly Labour Survey', for enterprises with five or more employees) increased by 2.1% in FY2024, marking the highest rise in 30 years since FY1994. This trend has continued into FY2025, albeit at a slightly slower pace. With consumer prices rising for over four years since September 2021, the extent of wage improvements has the potential to significantly impact people's lives.

Referencing the Japanese Trade Union Confederation's (RENGO) policy of demanding wage increases of 5% or more in the 2026 spring wage negotiations, we have established a '5% Wage Increase Case' for analysis. Nominal wages (compensation of employees per capita) in FY2026 would exceed the Reference Scenario by 1.1%. The upward swing in disposable income stimulates private final consumption. Conversely, wage increases exceeding the 'fundamental level' driven by productivity gains also generate downward pressures. These include accelerated price rises due to increased labour costs, reduced private non-residential capital investment from squeezed investment funds, and consequent supply capacity declines leading to further price increases. Real GDP remains flat as these positive and negative contributions largely offset each other. Energy sales volumes will see upward swing for city gas, power services of electricity and diesel oil, driven by increased industrial and transport consumption due to production expansion. Gasoline and jet fuel oil will also see

upward swing as household income growth stimulates travel and mobility demand. Consequently, electricity sales will increase by 0.01%, city gas by 0.05% and fuel oil by 0.02%. In the '10% Wage Increase Case', which mechanically doubles the wage increase rate from the 2026 spring wage negotiations, nominal wages would rise by 5.3% compared to the Reference Scenario. This would cause real GDP to decline, while energy sales volumes would see a further upward swing.

Table 2 | Impact of wage increases

			FY2026		Changes from Reference	
		Reference	5% Wage Increase	10% Wage Increase	5% Wage Increase	10% Wage Increase
Economy	Compensation of employees per capita (¥ thousand)	5,482	5,542	5,770	+1.1%	+5.3%
	Real GDP (¥2020 trillion)	597.7	597.7	597.3	-0.0%	-0.1%
	Private consumption	311.9	312.0	312.5	+0.0%	+0.2%
	Private non-residential investment	107.8	107.6	106.5	-0.2%	-1.1%
	Indices of industrial production (CY2020=100)	103.4	103.4	103.6	+0.1%	+0.2%
	Consumer price index (CY2020=100)	114.7	115.2	117.7	+0.4%	+2.6%
Energy	Primary energy supply (Mtoe)	399.2	399.3	399.3	+0.01%	+0.02%
	Electricity sales (TWh)	805.9	806.0	806.1	+0.01%	+0.03%
	City gas sales (Bcm)	37.41	37.43	37.47	+0.05%	+0.17%
	Fuel oil sales (GL)	137.3	137.3	137.5	+0.02%	+0.12%
Environment	Energy-related CO_2 emissions (Mt)	868	868	868	+0.01%	+0.01%

However, such consumption-stimulating effects cannot be counted on with any great certainty. The younger generation, who are the primary beneficiaries of the targeted wage increases, show little effect of increased consumption from their regular income growth. Conversely, elder generations such as the baby boomers' children, who have experienced significant declines in real wages, are causing a substantial drop in consumption due to both their large population size and high propensity to consume. It is crucial to implement balanced and appropriate wage increases that are commensurate with productivity gains and other fundamentals, are sustainable, and do not disproportionately favour specific groups.

Impact on the 3Es according to the degree of nuclear utilisation

Assessing the impact on the '3Es'—economy, stable supply and environment—based on differing levels of nuclear power generation utilisation. In the 'Low Case' where no nuclear power plants will restart by the end of FY2026, compared to the Reference Scenario, fossil fuel imports would increase by ¥112 billion, self-sufficiency would decrease by 0.9pt, and CO_2 emissions would rise by 5 Mt. Conversely, in a hypothetical '18-unit Case' where the 18 nuclear power plants that passed the installation permit standards review operate at an 80% capacity factor, the contribution to the 3Es from increased nuclear power generation becomes clearly evident. Appropriate utilisation of nuclear power generation yields positive effects.

Table 3 | Impact according to the degree of utilisation of nuclear power generation

		FY2026			Changes from Reference	
		Low	Reference	18-unit	Low	18-unit
Nuclear	Restarted nuclear plants, as of the end of FY	14	16	18	-2	+2
	Electricity generated (TWh)	92.4	106.2	126.0	-13.8	+19.8
	Share in total electricity generated	9.1%	10.4%	12.4%	-1.4pt	+1.9pt
3Es	Fossil fuel imports (¥ billion)	17,413	17,301	17,137	+112	-164
	Self-sufficiency rate	18.3%	19.2%	20.5%	-0.9pt	+1.3pt
	Energy-related CO_2 emissions (Mt)	873	868	861	+5	-7

The outlook for electricity demand, long anticipated to decline, is shifting. With the yen at its weakest level in 40 years, the yen-denominated import price of fossil fuels remains high. Consequently, voices expressing hope for nuclear power generation—capable of supplying low-carbon, stable and affordable electricity—are increasingly being heard. To meet these expectations and achieve its 'maximum utilisation', it is essential not only to ensure safety in power generation but also to secure public understanding by guaranteeing safety throughout the entire process, including the back-end operations of spent nuclear fuel reprocessing and disposal.

Overview of the economy

Real gross domestic product (GDP) for the 3Q2025 fell by 0.4% quarter-on-quarter, marking the first contraction in six quarters. Private non-residential capital investment increased by 1.0%, setting a new record high for the second consecutive quarter. However, private final consumption expenditure, which accounts for over half of GDP, remained weak, rising by just 0.1% and essentially flat. This was compounded by a significant 9.4% decline in private residential investment, largely due to the impact of amendment to the Building Energy Efficiency Act. Exports also decreased, heavily affected by US tariff policies. Ultimately, both domestic and external demand shifted from positive to negative contributions compared to the previous quarter. The sharp decline in private residential investment, whose impact is expected to last several quarters to about a year, significantly contributed to the GDP contraction (contributions: −0.3%). Consequently, the view that this downturn is temporary appears to be widely held. However, domestic supply constraints, including labour shortages, rising prices, and US tariff policies remain risks. Furthermore, trade friction with China, particularly among Western nations, and deteriorating Japan–China relations could also dampen the economy through supply disruptions and a sharp decline in Chinese tourists visiting Japan.

International trade from January to October 2025 saw exports to the United States decline, but this was offset by increased exports to Asia excluding China. Combined with a reduction in fossil fuel imports, the trade deficit decreased by 46% year-on-year to ¥3.1 trillion. The current account balance rose by 14% to ¥27.7 trillion, driven by the trade surplus improvement and an expansion in the surplus from overseas direct investment income. The annual current account surplus is projected to reach a record high for the second consecutive year.

The rate of inflation has been declining since peaking at 4.0% in January, yet it has remained above 2% for 43 consecutive months. Contributions from food remain significant, whilst contributions from communications have also increased since June. Wages are rising but failing to keep pace with price increases, resulting in real wages declining for nine consecutive months.

The Nikkei Stock Average briefly dipped below ¥32 000 in April following the announcement of Trump's tariff rates. However, the subsequent rise was steep, with the index breaking through the ¥50 000 mark for the first time in October. The earnings of listed companies, which are anticipated by share prices, had at one point raised concerns about a downturn, but have generally remained robust, partly due to the weak yen.

The dollar–yen exchange rate, which had started the year around ¥158/$ following the previous year's trend, had appreciated to ¥140/$ by April. The subsequent trend of yen depreciation accelerated from October following the inauguration of the expansionary fiscal policy-oriented Takaichi administration. Consequently, the rate has now returned to its year-start level. The euro–yen rate broke through ¥180/€ to record the weakest yen level since the euro's introduction. Long-term interest rates became particularly volatile from November onwards, driven by a combination of factors: reduced bidding interest for ultra-long and long-term government bonds, market speculation regarding additional bond issuance under the large-scale supplementary budget and regarding monetary policy. In December, the rates surged sharply, briefly threatening to breach the 2.0% mark for the first time in 19 years.

Beyond interest rates, concerns are mounting that labour shortages could become a factor constraining economic activity. Indeed, reports indicate bankruptcies attributed to labour shortages are occurring at a record pace. Although the income tax threshold has been raised to ¥1.6 million, no significant effect on increasing the labour supply has materialised.

Brent crude oil prices commenced January at an average of $79 per barrel but subsequently entered a downward trend due to factors including oversupply and stagnant demand, reaching a low of $64/bbl in May. Subsequently, they rose briefly to the $70/bbl range due to the impact of the

Israel–Iran conflict but have since been hovering around $60/bbl as concerns over supply–demand imbalances have resurfaced. The perceived high cost of oil domestically is largely attributable to the historically weak yen.

Table 4 | Domestic events in 2025

January 2025
The Bank of Japan raised interest rates further.

February
The Seventh Strategic Energy Plan was approved by the Cabinet.

March
Decommissioning work began on Hamaoka Nuclear Power Station Unit 2.
Release of government-held rice reserves commenced

April
Expo 2025 Osaka, Kansai, Japan opened (until October).
Rice prices surged again.
Second removal of fuel debris from Fukushima Daiichi Nuclear Power Station Unit 2

May
Summer electricity and city gas bill support measures decided

June
The number of births in the previous year fell below 700 000, setting a new record low.

July
Liberal Democratic Party (LDP) and Komeito suffered defeat in House of Councillors election, losing majority.
Japan and United States agreed on 15% 'reciprocal tariffs'.
Kansai Electric Power announced resumption of investigations for new nuclear reactor construction at Mihama Power Station.

August
Record-high minimum wage increases proposed
Mitsubishi Corporation, Chubu Electric Power and others withdrew from offshore wind projects off Chiba and Akita prefectures.
Record-breaking heatwave

September
Prime Minister Ishiba announced his resignation.

October
Komeito withdrew from coalition with LDP. Japan Innovation Party joined LDP coalition.
Takaichi Cabinet formed
Number of foreign visitors to Japan exceeded 30 million annually at fastest pace on record.
Nikkei Stock Average broke through ¥50 000 mark for the first time.

November
Winter electricity and city gas bill support measures decided
Act abolishing provisional rates for gasoline tax and diesel oil transaction tax enacted.
Local mayors of Kashiwazaki–Kariwa and Tomari nuclear power stations each announced acceptance of restart.

December
Osaka Gas, Toho Gas and others joined e-methane business in the United States.

Key assumptions in the Reference Scenario

Global economy

The global economic growth rate (based on purchasing power parity) in 2025 is projected to be +3.2%. Growth will be sustained in Asian emerging economies such as India and the Association of Southeast Asian Nations (ASEAN), but North America will slow due to trade friction and China due to its property crisis. In 2026, advanced economies are assumed to maintain growth at a similar level to the previous year. However, growth is assumed to slow to +3.1%, partly due to a slowdown in China affected by its property crisis and a slowdown in India where exports are assumed to weaken due to additional tariffs imposed by the United States.

Import CIF prices for fossil fuels

Japan's crude oil import price is assumed to average $69/bbl in FY2025 ($74/bbl in the first half, $65/bbl in the second half) and $57/bbl in FY2026. LNG prices, reflecting oil price movements with a lag, are assumed to be $10.6/MBtu in FY2025 and $8.8/MBtu in FY2026. Steam coal is assumed to be $122/t in FY2025 and $127/t in FY2026, whilst coking coal is assumed to be $160/t in FY2025 and $170/t in FY2026 (refer to Morikawa "Outlook for International Oil Market in 2026", Yanagisawa "Outlook for International Gas Market in 2026", and Takahashi "Outlook for International Coal Market in 2026").

Foreign exchange rate

The dollar–yen exchange rate is assumed to average ¥149.6/$ for FY2025 and ¥147.0/$ for FY2026.

Energy consumption subsidies, taxes

Fuel oil subsidies commenced on 27 January 2022 to mitigate sharp price fluctuations, transitioning to a fixed-rate reduction measure on 22 May 2025. For gasoline, subsidies were increased to ¥25.1/L by 11 December, with both the provisional tax rate and subsidies scheduled for abolition by the end of 2025. For diesel oil, the subsidy was increased to ¥17.1/L by 27 November, with the provisional tax rate and subsidy being abolished on 1 April 2026. For kerosene, heavy fuel oil and aviation fuel, the subsidy will also be abolished on 1 April 2026.

Subsidies for electricity and city gas were decided for January–March 2026 under the 'Comprehensive Economic Measures' approved by the Cabinet on 21 November 2025. For electricity, subsidies of ¥4.5/kWh for low-voltage and ¥2.3/kWh for high-voltage usage in January and February, and ¥1.5/kWh for low-voltage and ¥0.8/kWh for high-voltage usage in March will be provided. For city gas, subsidies of ¥18/m³ will be provided for usage in January and February, and ¥6.0/m³ for usage in March. No subsidies will be provided for either electricity or city gas from April onwards.

Nuclear power generation

To date, 14 plants have resumed operations. No new plants are scheduled to restart in FY2025. Operating for an average of 10.6 months, electricity generated will reach 93.3 TWh (a 4.4% increase compared to the previous year). Based on progress with regulatory compliance reviews and other factors, two new plants will restart operations in FY2026. Operating for an average of 10.1 months, electricity generated will increase to 106.2 TWh (+13.9%).

Atmospheric temperature

The summer of 2025 saw record-breaking high temperatures, surpassing the previous year's equally intense heatwave (+0.4°C). The winter of FY2025 (November 2025–February 2026) is assumed to be near average based on the Japan Meteorological Agency's three-month forecast, with subsequent periods assumed to be mechanically near average. That is, compared to the previous year: the winter of FY2025 will be slightly colder (−0.1°C), the summer of FY2026 will be considerably cooler (−2.3°C), and the winter of FY2026 will be similar to the previous year (±0.0°C).

Figure 1 | Temperature assumptions
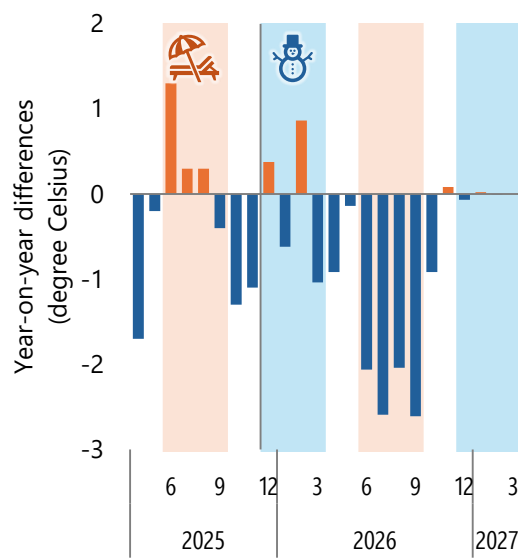
Macro economy

The Japanese economy in FY2026 will continue its modest expansion at 0.9% growth, though the shadow of US tariff policies will persist. Slowing inflation will ease household thriftiness, supporting consumption. However, factors such as uncertainty about the future, slowing exports and rising interest rates could act as restraints.
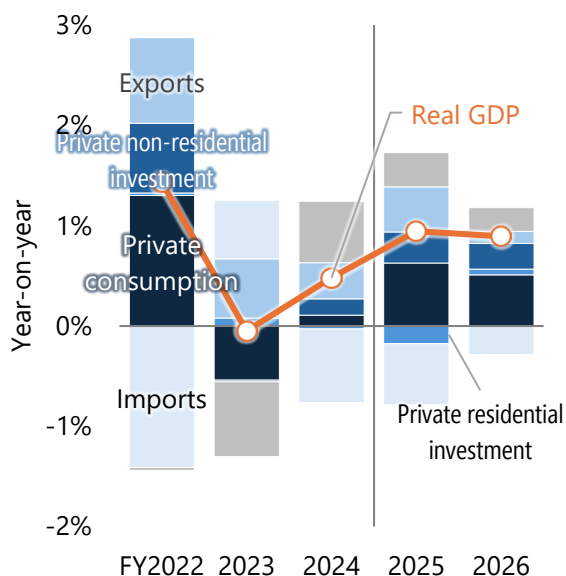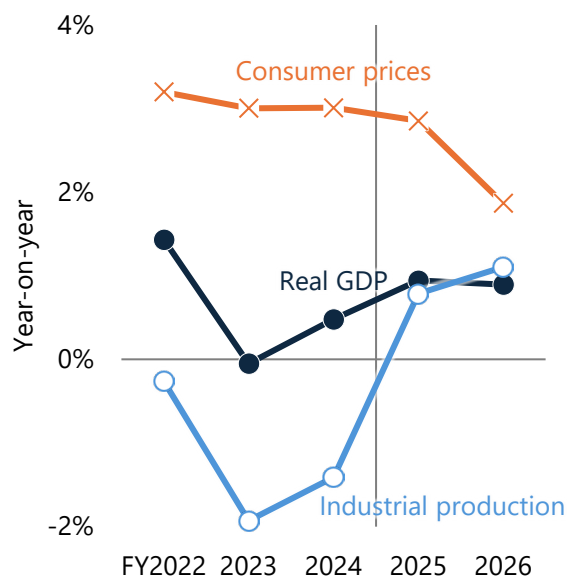
Figure 2 | Real GDP and contributions

Figure 3 | Consumer prices, real wages and industrial production

Real GDP will recover in FY2025, driven mainly by domestic demand, and grow by around 1% (+0.9%) for the first time in three years. Private demand will contribute +1.0% to growth. Private final consumption will be boosted by wage increases and slowing inflation (+1.2%). Private residential investment is declining sharply (−4.1%) due to the impact of the April 2025 amendment to the Building Energy Efficiency Act. Private non-residential investment will increase (+1.7%) for productivity improvement, labour shortage countermeasures and green transformation (GX). Public demand will see a slight increase in government final consumption due to factors such as increased defence spending, but public investment in disaster recovery, disaster prevention and national resilience will be curbed due to rising construction costs, resulting in a contribution of 0.0%. External demand will contribute −0.1% due to the impact of factors such as a decline in automobile exports caused by US tariff policies

and an increase in imports of pharmaceuticals and other goods.

In FY2026, growth will expand primarily driven by domestic demand, similar to the previous year. However, the lingering impact of US tariff policies will result in a growth rate of +0.9%. Private demand will contribute +0.9% to growth. Private final consumption will continue to recover (+1.0%), as households gradually adapt to inflation and the rate of price increases continues to moderate. Private residential investment will see the impact of the decline caused by the 2025 amendment to the Building Energy Efficiency Act gradually ease but will not recover to the FY2024 level (+1.5%). Private non-residential investment will see its growth rate slow (+1.4%) due to concerns over future uncertainty, despite continued investment in productivity improvements and measures to address labour shortages. Public demand will contribute +0.1% to growth, driven by increased social security expenditure stemming from measures to address an ageing population

and declining birth rates. Regarding external demand, exports will show sluggish growth, partly due to lingering effects from reduced automobile exports. Conversely, imports will grow at a rate exceeding GDP growth, partly due to domestic supply constraints. Overall, the net contribution will be −0.2%, marking the third consecutive year of negative contribution.

Table 5 | Macro economy

	Historical			Projection		Year-on-year		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
Real GDP (¥2020 trillion)	584.3	584.0	586.9	592.4	597.7	0.5%	0.9%	0.9%
Private demand	436.2	431.0	433.0	438.9	443.5	(0.8%)	(1.0%)	(0.9%)
Private consumption	307.7	304.7	305.3	308.9	311.9	0.2%	1.2%	1.0%
Private residential investment	22.8	23.2	23.1	22.1	22.4	-0.7%	-4.1%	1.5%
Private non-residential investment	103.8	103.7	104.6	106.3	107.8	0.9%	1.7%	1.4%
Public demand	147.4	146.3	149.1	149.3	150.6	(0.3%)	(0.0%)	(0.1%)
Government consumption	119.7	118.8	121.5	121.8	122.8	2.3%	0.3%	0.8%
Public investment	27.7	27.7	27.7	27.5	27.8	0.1%	-0.7%	1.0%
Net exports of goods and services	1.6	6.7	5.3	4.8	4.1	(-0.5%)	(-0.1%)	(-0.2%)
Exports	99.2	102.0	103.7	105.8	106.4	1.7%	2.0%	0.6%
Imports	97.6	95.3	98.4	101.0	102.3	3.3%	2.7%	1.3%
Nominal GDP (¥ trillion)	591.7	619.4	642.4	671.4	693.3	3.7%	4.5%	3.3%
Balance of trade (¥ trillion)	-22.1	-6.2	-5.4	-1.3	-0.4	-13.2%	-74.8%	-67.4%
Exports	99.2	102.9	108.9	110.4	112.2	5.9%	1.4%	1.6%
Imports	121.3	109.1	114.3	111.8	112.7	4.8%	-2.2%	0.8%
Imports of fossil fuels	35.3	26.0	25.1	20.8	17.3	-3.6%	-16.9%	-17.0%
Oil	17.8	14.8	14.6	12.3	10.0	-1.7%	-15.8%	-18.6%
LNG	8.9	6.1	6.2	5.2	3.9	2.1%	-15.2%	-25.0%
Current account (¥ trillion)	9.1	26.2	29.5	36.7	34.4	12.8%	24.2%	-6.4%
Domestic corporate goods price index (2020=100)	117.2	120.1	124.1	127.3	128.6	3.4%	2.6%	1.0%
Consumer price index (2020=100)	103.2	106.3	109.5	112.6	114.7	3.0%	2.9%	1.9%
Unemployment rate (%)	2.6	2.6	2.5	2.5	2.5	[-0.1p]	[-0.0p]	[-0.0p]

Notes: GDP and breakdown totals may not match due to changes in inventory and residuals.

Figures in ( ) indicate contributions. Figures in [ ] indicate year-on-year changes.

Production activities

Industrial production in FY2026 will expand, driven by progress in tariff countermeasures and increased output of production machinery and electrical machinery. The raw materials will see reduced production due to structural and trend factors, as well as the impact of China's overproduction.

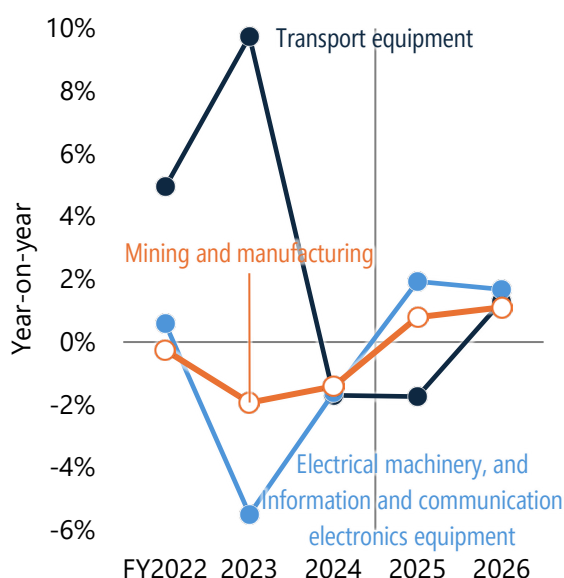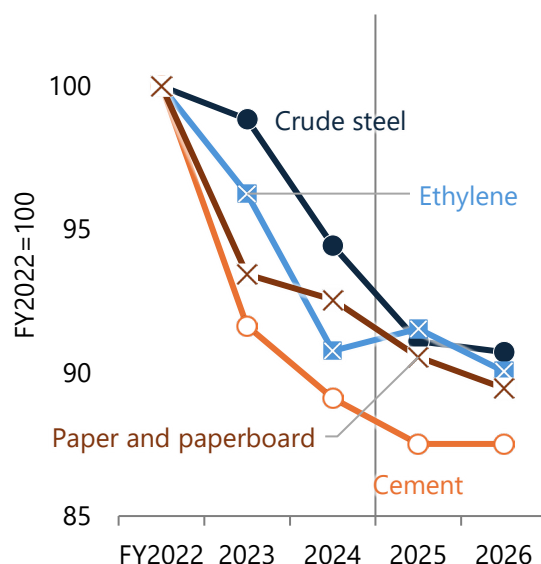**Figure 4 | Indices of industrial production**

Figure 5 | Production of raw materials

Mining and manufacturing industry

The indices of industrial production in FY2025 will be restrained in sectors vulnerable to US tariff policies. Conversely, production will increase for information and communications equipment and data centre server-related equipment driven by digital transformation (DX) and artificial intelligence (AI), alongside next-generation power network equipment (such as transformers and control devices for transmission and distribution) for GX, leading to an overall rise (+0.8%). In FY2026, demand for production machinery and electrical machinery will remain strong. Furthermore, as countermeasures against tariff impacts progress, downward pressure will ease, leading to an increase (+1.1%). However, the impact of reduced exports to the United States will persist in automobile production.

Crude steel

Domestic demand for steel products in FY2025 will see growth in the electrical machinery and shipbuilding sectors, but demand for construction will remain sluggish due to the impact of

maximum working hour regulations, labour shortages and soaring material prices. Furthermore, exports will decline, partly due to the impact of China's excess production entering the Asian market. Consequently, crude steel production will decrease for the fourth consecutive year (−3.5%). In FY2026, domestic steel demand will increase for the first time in five years, primarily driven by the automotive and electrical machinery sectors. Exports, while still affected by China's overproduction, will see a narrowing decline due to expanding demand in regions such as ASEAN. Consequently, the decline in crude steel production will moderate (−0.4%).

Ethylene

Production of ethylene, one of the key petrochemical base products, will increase by 0.8% in FY2025 due to fewer scheduled maintenance shutdowns at ethylene plants compared to the previous year. Domestic demand for derivative products will increase, driven by robust demand for food containers, despite sluggish demand for automotive parts. Exports will rise, despite the

impact of Chinese excess products flooding Asian markets, due to fewer scheduled plant maintenance periods than the previous year. Production in FY2026 will decrease by 1.6% as ethylene plant restructuring reduces production capacity. Domestic demand is expected to remain largely flat. This is due to structural factors such as reduced plastic usage in downstream products and sluggish construction demand, offset by a recovery in consumer purchasing power as inflation eases and sustained demand for automotive parts. Exports are projected to return to a declining trend, impacted by China's overproduction amid slowing domestic demand in the country.

Cement

Domestic demand in FY2025 will decline due to labour shortages at construction sites, revised project timelines stemming from rising building material prices and labour costs, construction delays caused by work-style reforms and mandatory heatstroke countermeasures, and the concrete industry's move towards a two-day weekend system. Exports to Asia will decrease due to increased production in Viet Nam, a cement powerhouse producing over twice Japan's output, but growth to other regions will support overall exports. Production will decrease by 1.8% as the decline in domestic demand outweighs other factors. In FY2026, domestic demand will remain largely flat under similar conditions to FY2025, supported by demand for the renewal of ageing infrastructure. Exports will increase, despite the continued impact of Viet Nam's overproduction, due to steady demand from other regions. Consequently, production will remain flat.

Paper and paperboard

In the domestic demand for paper and paperboard in FY2025, paper will decline due to structural factors related to digitalisation, compounded by the suspension or discontinuation of evening newspapers and magazines. Paperboard will decrease due to the impact of reduced purchasing caused by slowing inbound demand and high prices. Exports will remain flat for paper due to weak demand in the Asian region, whilst paperboard will decrease due to the impact of expanded production capacity in China. Production will decline for the fourth consecutive year (−2.2%). Regarding domestic demand in FY2026, paper will see a continued decline, with the reduction in demand driven by digitalisation outweighing the temporary boost from events such as the Fédération Internationale de Football Association (FIFA) World Cup. Paperboard will decrease due to progress in shifting from corrugated cardboard to alternatives like paper bags as part of packaging reduction efforts. Against this backdrop, production of paper and paperboard will continue to decline, albeit at a slower rate (−1.2%).

Automobiles

Automotive production in FY2025 will see the impact of certification issues from the previous year resolved. However, it faces new supply constraints due to delays in procuring components such as semiconductors. Production will decrease by 0.3% due to factors including extended delivery times, order suspensions associated with product transitions, US tariff policies and sluggishness in the European market affecting exports. Domestic shipments in FY2026 will increase as component supply constraints ease. Exports, while continuing to face downward pressure from US tariff policies, will largely stabilise as the impact of these policies runs its course. Consequently, production will increase by 0.4%.

Table 6 | Production activities

		Historical			Projection		Year-on-year		
		FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
Production	Crude steel (Mt)	87.8	86.8	83.0	80.0	79.7	-4.5%	-3.5%	-0.4%
	Ethylene (Mt)	5.48	5.28	4.98	5.02	4.94	-5.7%	0.8%	-1.6%
	Cement (Mt)	51.5	47.2	45.9	45.1	45.1	-2.8%	-1.8%	0.0%
	Paper and paperboard (Mt)	23.3	21.8	21.6	21.1	20.8	-0.9%	-2.2%	-1.2%
	Automobiles (million)	8.10	8.68	8.47	8.45	8.48	-2.4%	-0.3%	0.4%
Indices of production	Mining and manufacturing (2020=100)	104.9	102.9	101.4	102.2	103.4	-1.4%	0.8%	1.1%
	Food and tobacco	98.7	98.1	98.1	96.2	96.7	0.1%	-2.0%	0.5%
	Chemicals	102.5	99.2	99.0	107.6	108.5	-0.1%	8.6%	0.9%
	Non-ferrous metals	105.4	101.6	102.0	100.1	100.9	0.3%	-1.8%	0.8%
	Metal products and machinery	108.6	107.4	105.6	106.4	108.1	-1.6%	0.8%	1.6%
Indices of tertiary industry activity (2019-2020=100)		99.9	101.5	102.9	104.8	106.0	1.5%	1.8%	1.2%

Notes: Chemicals include synthetic fibres. Metal products and machinery includes metal products, general machinery, electrical machinery, information and communication machinery, electronic components and devices, transport equipment and precision machinery.

Energy consumption and carbon dioxide emissions

Energy consumption will decline for the fifth consecutive year, falling to levels last seen four decades ago. Whilst expanded production activities will contribute to the increase, the impact of a cooler summer will be significant. LNG imports will decrease by over 30% from their peak, partly due to fuel substitution. Although CO_2 emissions are gradually decreasing, concerns are growing regarding progress towards the 2030 targets.

Figure 6 | Energy consumption

Figure 7 | CO_2 emissions and contributions
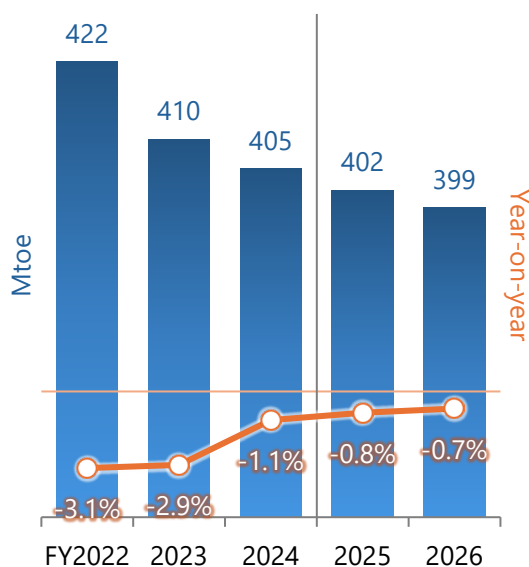
Energy consumption

Energy consumption (primary energy supply) will decrease by 0.8% in FY2025, influenced by sluggish production in energy-intensive industries, particularly iron and steel industry. In FY2026, it will decline for the fifth consecutive year (−0.7%), driven by reduced space cooling demand due to a cooler summer compared to the previous year and lower demand stemming from decreased production of crude steel and other products.

Energy intensity per unit of real GDP will improve for the fifth consecutive year (FY2025: −1.8%, FY2026: −1.5%). Alongside energy conservation across sectors, the reduction in production of energy-intensive materials, coupled with growth driven by energy-light industries—electrical machinery manufacturing in FY2025 and transport machinery manufacturing additionally in FY2026—will contribute to improvement through industrial lightening. While GDP energy intensity will continue to improve, the rate of improvement will slow. The high improvement rate of 4.3% recorded in FY2022 was exceptional, driven by the sharp rise in energy prices due to the direct and indirect impacts of the Ukraine crisis, energy conservation involving restraint, and sluggish manufacturing production activity.

New energies

New energy sources such as solar photovoltaics (PVs), wind and biomass continue to increase (FY2025: +5.7%, FY2026: +5.8%). Excluding nuclear, where restarting power plants is progressing, this represents growth unseen in other energy sources, accounting for 9.6% of primary energy consumption in FY2026. The largest non-residential solar PVs are also undergoing changes, such as the increasing adoption of power purchase agreements (PPAs) not covered by the Feed-in Tariff (FIT) or Feed-in Premium (FIP) schemes. However, the explosive expansion seen in the early days of the FIT has subsided. Factors include not only the decline in FIT purchase prices and the reduction in suitable installation

sites, but also friction with local communities where installations occur.

Nuclear

Nuclear will see two new restarts of power plants in FY2026, with energy supply increasing for the fourth consecutive year (FY2025: +5.1%, FY2026: +13.7%). This marks the first time since the Great East Japan Earthquake that its share of primary energy consumption will exceed 5%.

Oil

Oil consumption will decrease by 0.4% in FY2025 due to improvements in energy efficiency, progress in fuel switching, and reduced utilisation factors of oil-fired power generation. However, this decline will be partially mitigated by increased space heating demand resulting from a slightly colder winter compared to the previous year. In FY2026, alongside the decline due to reduced ethylene production, the ongoing fuel switching and progress in energy conservation will have a significant impact, leading to a continued decrease (−0.9%), primarily in heavy fuel oil.

Coal

Coal consumption will decrease by 1.6% in FY2025, driven by reduced industrial demand due to lower production of crude steel and cement, alongside reduced demand for power generation by biomass co-firing at existing coal-fired power plants. In FY2026, the decline in both power generation and industrial uses will moderate somewhat, with the rate of decrease being the smallest over the five-year period (−0.7%).

Natural gas

Natural gas consumption will decline, primarily for power generation, due to the continued expansion of new energies centred on solar PVs and the restart of nuclear power plants (FY2025: −2.8%, FY2026: −8.0%). Consequently, LNG imports will decrease for the second consecutive year (FY2025: −2.9%, FY2026: −8.4%). In FY2026, imports will reach 58.6 Mt, representing a decline of over 30% from the peak recorded in FY2014. The value of LNG imports will fall below ¥5 trillion, aided by lower dollar-denominated prices and a moderation in yen depreciation. Together with oil, this will significantly contribute to an improvement in the trade balance.

Energy self-sufficiency rate

The self-sufficiency rate will rise for the fourth consecutive year, driven by increases in new energies and nuclear (FY2025: +1.2pt, FY2026: +1.6pt). In FY2026, it will reach 19.2%, approaching within 1pt of the FY2010 figure (20.2%) recorded before the impact of the Great East Japan Earthquake.

CO_2 emissions

Energy-related CO_2 emissions will decrease for five consecutive years (FY2025: −2.4%, FY2026: −2.1%), reaching 868 Mt in FY2026. However, compared to FY2013 levels, this represents a 29.8% reduction, growing concerns about delays in progress towards the FY2030 reduction target (45% reduction compared to FY2013 levels).

Table 7 | Primary energy supply

	Historical			Projection		Year-on-year		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
Primary energy supply (Mtoe)	422.4	410.1	405.4	402.0	399.2	-1.1%	-0.8%	-0.7%
Coal	114.0	106.9	105.7	104.1	103.4	-1.1%	-1.6%	-0.7%
Oil	158.0	149.9	143.6	143.0	141.7	-4.2%	-0.4%	-0.9%
Natural gas	92.0	88.8	87.5	85.1	78.2	-1.5%	-2.8%	-8.0%
LNG imports (Mt)	70.5	64.9	65.9	64.0	58.6	1.5%	-2.9%	-8.4%
Hydro	16.0	15.6	15.4	15.2	14.9	-1.3%	-1.0%	-1.8%
Nuclear	11.5	17.1	19.0	20.0	22.7	11.2%	5.1%	13.7%
New energies, etc.	30.9	31.9	34.2	36.1	38.2	7.3%	5.7%	5.8%
Self-sufficiency rate	12.6%	15.3%	16.4%	17.6%	19.2%	1.1pt	1.2pt	1.6pt
GDP intensity (FY2013=100)	83.0	80.3	78.9	77.5	76.3	-1.7%	-1.8%	-1.5%
Energy-related CO_2 emissions (Mt)	961	921	908	886	868	-1.4%	-2.4%	-2.1%
(vs. FY2013)	-22.2%	-25.4%	-26.5%	-28.3%	-29.8%	-1.1pt	-1.7pt	-1.5pt

Notes: Renewables include solar photovoltaics, wind, biomass, solar heat and geothermal. Self-sufficiency rate is based on IEA standards.

Electricity sales and mix of electricity generated/received (electric utilities)

Electricity sales volume will decrease, driven by reduced production in energy-intensive industries. Ratio of non-fossil fuel electricity generated and received will reach 40%, supported by the restart of nuclear power plants and the continued growth of renewable energy.
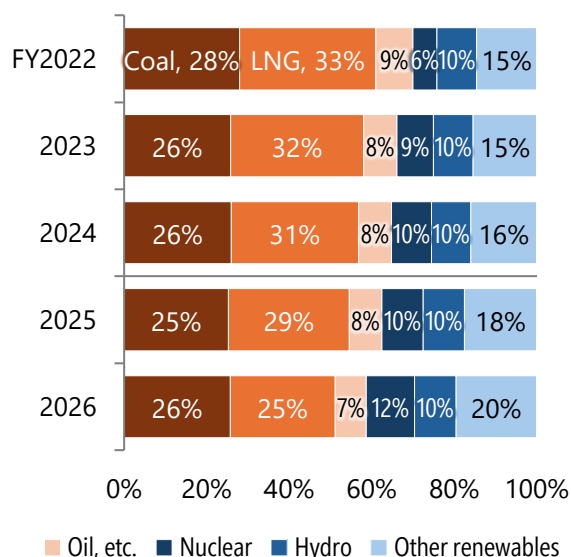
Figure 8 | Electricity sales volume

Figure 9 | Mix of electricity generated/received
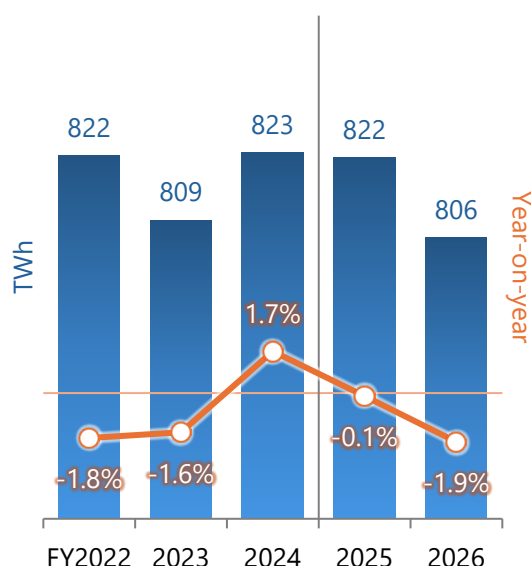
Electricity sales

Total electricity sales volume for FY2025 will decrease marginally by 0.1% due to reduced power services. Power services will decline slightly by 0.2%, despite increased production in the chemical and electrical machinery industries, owing to sluggish production of crude steel and automobiles. Meanwhile, lighting services will see a slight increase (+0.1%) due to a summer hotter than FY2024 and a somewhat colder winter. Consequently, lighting services will again account for over half of electricity sales in FY2025, following FY2024. This rise in lighting services' share implies that Japan's electricity consumption, and consequently its energy consumption for power generation, will become more susceptible to factors like temperature than to economic trends.

Total electricity sales for FY2026 will decline for the second consecutive year (−1.9%). Power services will decrease for the second year running (−1.1%), impacted by sluggish production in raw material industries such as the chemical sector. Meanwhile, lighting services will fall significantly (−3.6%) due to the combined effects of a notably cooler summer and ongoing energy-saving progress. The cold spell in early spring will not contribute enough to offset the decline. Furthermore, assuming temperatures remain at the previous year's level, total electricity sales would decrease by 0.1% (with both lighting services and power services −0.1%).

Mix of electricity generated and received

The mix of electricity generated and received will see an increase in renewables (excluding hydro), primarily solar PVs and biomass-fired, rising by 1.6pt in FY2025 and 2.0pt in FY2026. Nuclear will see only a 0.4pt increase in FY2025 due to no restarted power plants but will rise by 1.7pt to just under 12% in FY2026 following the restart of two power plants, exceeding hydro's share by over 1pt. Non-fossil fuel will rise by 3.8pt to 41.3% in FY2026, reaching the 40% milestone. However, continued expansion will be necessary to achieve the approximately 59% non-fossil ratio targeted for FY2030, which underpins the Nationally

Determined Contribution (NDC) set by the government.

In FY2026, although coal-fired electricity generated and received will decrease due to the decommissioning of existing plants, its share will rise by 0.4pt as a result of the overall decline in total electricity generated and received. For oil and other sources, considering seasonal and regional supply capacities, the scope for further reductions in oil (heavy fuel oil and crude oil)-fired electricity generated and received has largely reached its limits. Whilst the sharp decline in its share seen previously will subside, it is unlikely to increase further (−0.4pt) unless other power sources experience disruptions. LNG, meanwhile, will fall below 30% in FY2025 due to the increase in non-fossil fuel power sources. Its share will continue to decline thereafter, falling by 3.8pt to 25.4% in FY2026.

Table 8 | Electricity sales volume, and mix of electricity generated and received

	Historical			Projection		Year-on-year		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
Electricity sales (TWh)	822.2	809.4	822.8	821.8	805.9	1.7%	-0.1%	-1.9%
Lighting services	270.2	266.8	276.0	276.3	266.3	3.4%	0.1%	-3.6%
Power services	552.0	542.6	546.9	545.5	539.5	0.8%	-0.2%	-1.1%
Electricity generated/purchased (TWh)	918.3	911.5	922.0	921.5	905.5	1.2%	0.0%	-1.7%
Hydro	9.6%	9.6%	9.6%	10.0%	10.1%	-0.1pt	0.4pt	0.1pt
Thermal	70.0%	66.2%	64.7%	62.4%	58.6%	-1.4pt	-2.3pt	-3.8pt
Coal	27.9%	25.8%	25.9%	25.3%	25.7%	0.1pt	-0.7pt	0.4pt
LNG	33.0%	32.2%	30.8%	29.3%	25.4%	-1.4pt	-1.6pt	-3.8pt
Oil, etc.	9.1%	8.1%	8.0%	7.9%	7.5%	-0.1pt	-0.1pt	-0.4pt
Nuclear	5.8%	8.8%	9.7%	10.0%	11.7%	0.9pt	0.4pt	1.7pt
Renewables (non-hydro), etc.	14.6%	15.4%	16.0%	17.5%	19.5%	0.5pt	1.6pt	2.0pt

Notes: Electricity sales are for electric utility use and do not include own use and specified supply.

Electricity generated/purchased is the actual estimate. Hydro includes pumped storage,

and oil, etc. includes city gas, coal products and others.

City gas sales (gas utilities)

City gas sales volumes will increase for the third consecutive year, driven by a cooler summer boosting those for residential and expanded production activities increasing those for general industries. However, they remain below the FY2020 level.
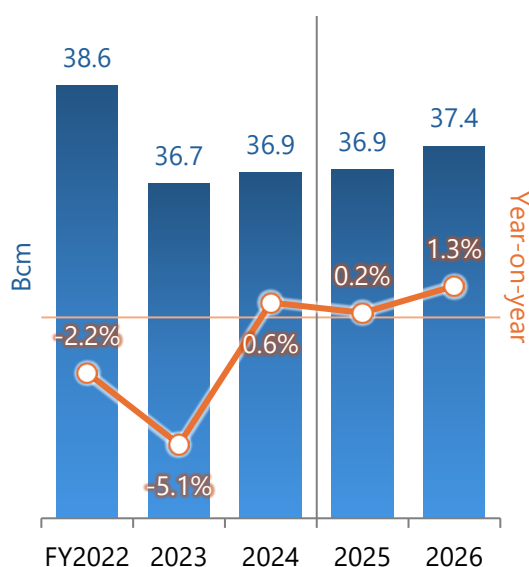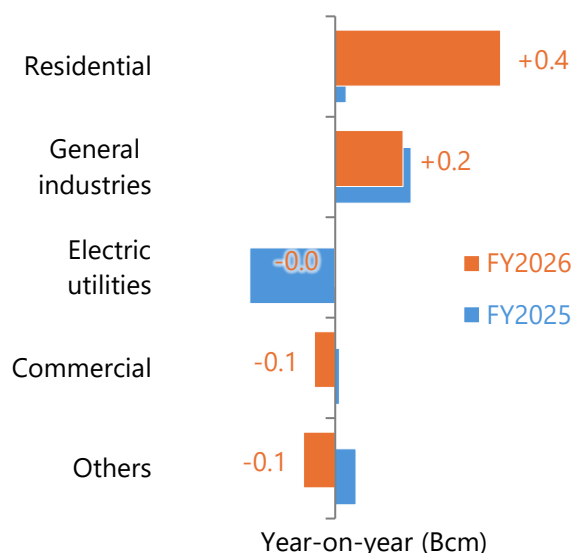
Figure 10 | City gas sales volume

Figure 11 | City gas sales volume (year-on-year changes)

Total city gas sales volume[1] will increase marginally by 0.2% in FY2025. This growth stems from increases in those for non-electric utilities—namely residential, commercial, general industries and others—despite a decline in those for electric utilities. In FY2026, commercial and others will decrease, partly due to reduced space cooling demand from a cooler summer. However, residential will increase due to higher water heating demand, whilst industry will increase linked to industrial production recovery and expansion, driving overall growth. Total sales volume will increase for the third consecutive year, with the growth rate exceeding 1% (+1.3%). However, the impact of the significant decline caused by reduced sales for general industries in FY2023 remains substantial, and the level is still lower than that of FY2020, when economic and social activities were severely constrained by the COVID-19 pandemic.

Sales for residential will increase marginally by 0.3% in FY2025, driven by slightly colder winter temperatures compared to the previous year, which will boost water and space heating demand. In FY2026, the sales will increase significantly (+4.8%). This is because the rise in water heating demand due to a much cooler summer compared to the record-breaking heatwave of FY2025 (which exceeded that of FY2024) will outweigh the impact of electrification and energy-conservation progress. Should temperatures follow the previous year's pattern and result in a heatwave summer, the growth rate would shrink to 0.3%.

Sales for industry will decline slightly by 0.1% in FY2025. Although those for general industries will increase due to growth in non-raw material industries, this will be significantly offset by a substantial decrease in those for electric utilities. In FY2026, the sales will increase for the first time

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[1] Gas utilities excluding former community gas utilities; converted at 1 m³ = 10 421 kcal until FY2022 and at 1 m³ = 10 366 kcal from FY2023.

in five years (+0.8%), driven by continued growth in those for general industries alongside expanding production in non-raw material industries.

Sales for commercial will increase marginally by 0.3% in FY2025, driven by increased activity in lifestyle-related services and entertainment sectors, coupled with slightly colder winter temperatures compared to the previous year boosting water and space heating demand. In FY2026, the sales will decrease by 1.4% due to factors including a significantly cooler summer leading to a substantial drop in space cooling demand. Should temperatures remain similar to the previous year, resulting in a scorching summer, the rate of decrease would narrow to 0.1%.

Sales for others will increase due to the impact of the intense heatwave since demand for space cooling in hospitals and similar facilities (+1.7%) in FY2025. In FY2026, the sales will decrease by 2.5% as the summer is significantly cooler compared to the previous year.

Table 9 | City gas sales volume

	Historical			Projection		Year-on-year		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
City gas sales (Bcm)	38.61	36.66	36.88	36.95	37.41	0.6%	0.2%	1.3%
Residential	8.96	8.58	8.73	8.75	9.18	1.7%	0.3%	4.8%
Commercial	3.67	3.72	3.80	3.81	3.76	2.3%	0.3%	-1.4%
Industry	22.95	21.37	21.14	21.11	21.29	-1.1%	-0.1%	0.8%
General industries	17.58	16.63	16.80	16.99	17.17	1.0%	1.2%	1.0%
Electric utilities	5.37	4.74	4.34	4.12	4.12	-8.5%	-5.0%	0.0%
Others	3.03	2.99	3.21	3.26	3.18	7.3%	1.7%	-2.5%

Note: Converted at 1 m^3 = 10 421 kcal until FY2022 and at 1 m^3 = 10 366 kcal from FY2023.

Fuel oil and LPG sales, and crude oil throughput

The decline in fuel oil sales volumes will be driven by reduced demand for heavy fuel oils and kerosene due to fuel switching, and reduced demand for naphtha as a petrochemical feedstock. The sales will shift from remaining flat in FY2025 to declining thereafter.
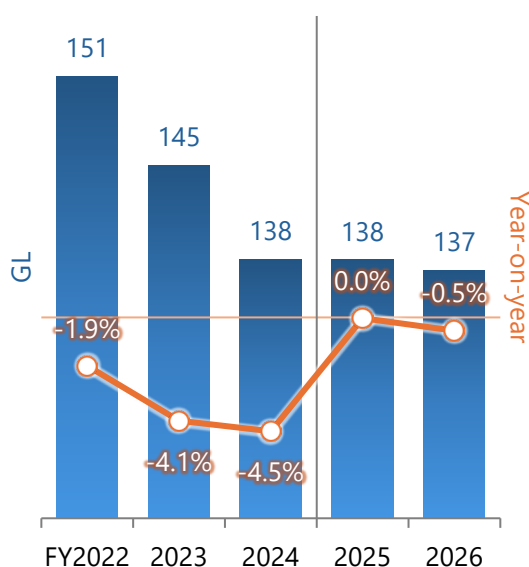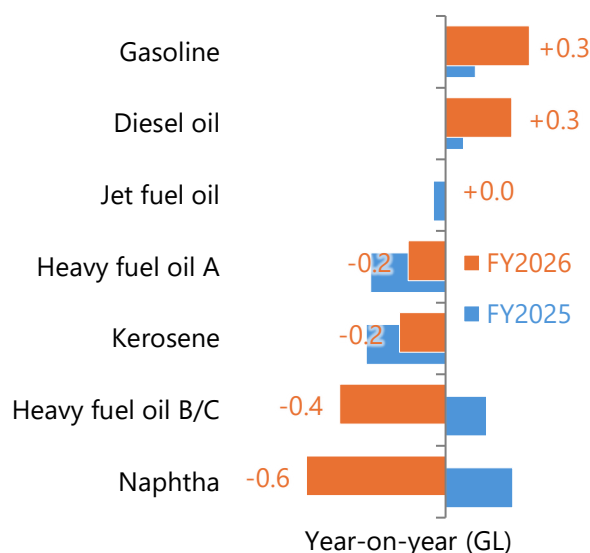
Figure 12 | Fuel oil sales volume

Figure 13 | Fuel oil sales volume (year-on-year changes)

Fuel oil sales volume

Fuel oil sales volumes will remain flat in FY2025, as increases in naphtha and gasoline offset declines in heavy fuel oil A, kerosene and jet fuel oil. In FY2026, sales will decrease by 0.5% primarily for heavy fuel oils, naphtha for petrochemical feedstock and kerosene, driven by progress in energy conservation and fuel switching. Gasoline and diesel oil will see a modest increase, but this will not be sufficient to offset the decline in other fuel oils.

Gasoline decreased by 1.9% in FY2024 due to improved fuel efficiency, the spread of hybrid vehicles, and reduced mileage caused by soaring fuel prices. In FY2025, although the effects of improved fuel efficiency and the spread of hybrid vehicles will continue, the sales will increase by 0.3% due to a rise in transport volume. In FY2026, gasoline will increase for the second consecutive year (+0.8%). This growth is driven by factors including increased freight transport volumes due to production recovery and lower gasoline prices

resulting from the abolition of the provisional gasoline tax rate.

Naphtha will increase by 0.8% in FY2025 due to higher ethylene production driven by growing domestic demand. In FY2026, however, it will decline by 1.6% as planned shutdowns of ethylene plants reduce production capacity.

Jet fuel oil has fully recovered from the post-COVID-19 pandemic decline in domestic air travel and will remain largely flat in FY2026.

Kerosene will decrease by 2.9% in FY2025, as the effects of fuel switching will outweigh the impact of a slightly colder winter and higher space heating demand. In FY2026, it will decline for the sixth consecutive year (−1.7%), influenced by ongoing fuel switching and other factors.

Diesel oil will increase marginally by 0.2% in FY2025, driven by growth in the industry sector. In FY2026, it will rise by 0.9% due to increased truck mileage accompanying higher logistics volumes.

Heavy fuel oil A will decline by 3.1% in FY2025 due to reduced demand in agriculture, forestry and fisheries, coupled with progress in fuel switching within the industry sector. In FY2026, it will decrease for the fourth consecutive year (−1.6%), as reduced demand in agriculture, forestry and fisheries and ongoing fuel switching in the industry sector persist.

Heavy fuel oil B/C sales for electric utilities will decline by over 10% in FY2025, though this represents a moderation from the nearly 40% drop recorded in FY2023. Increased industrial demand will offset the reduction in electric utilities, leading to an overall increase by 3.6%. In FY2026, however, progress in energy conservation and fuel switching will cause the sales to reverse course, resulting in a substantial 9.0% decrease.

LPG sales volume

Liquefied petroleum gas (LPG) sales will decline by 1.4% in FY2025, excluding for city gas, due to trend-driven fuel switching and energy conservation. In FY2026, although increased production activity and a significantly cooler summer than the previous year will contribute to increase, the sales will decrease for the fourth consecutive year (−1.4%). This decline is attributed to fuel switching, energy conservation and reduced demand for chemical feedstocks.

Crude oil throughput

Crude oil throughput will increase by 0.9% in FY2025. This growth is driven by flatting domestic demand for fuel oils, coupled with favourable export market conditions. The strong export market conditions stem from United States sanctions against certain countries related to Russian and Iranian crude oil and its imports, and the shutdown of major overseas refineries due to unexpected power outages. In FY2026, throughput will decline due to reduced domestic demand for fuel oils such as naphtha. However, the decrease will be 1.1%, not as steep as the sharp declines seen in FY2023 and FY2024.

Table 10 | Fuel oil and LPG sales volume, and crude oil throughput

	Historical			Projection		Year-on-year		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2024	FY2025	FY2026
Fuel oil sales (GL)	150.8	144.6	138.1	138.0	137.3	-4.5%	0.0%	-0.5%
Gasoline	44.8	44.5	43.6	43.8	44.1	-1.9%	0.3%	0.8%
Naphtha	38.2	36.2	34.1	34.3	33.8	-5.8%	0.8%	-1.6%
Jet fuel oil	4.0	4.4	4.2	4.2	4.2	-3.3%	-1.2%	0.0%
Kerosene	12.2	11.8	11.1	10.8	10.6	-6.3%	-2.9%	-1.7%
Diesel oil	31.7	31.2	30.7	30.8	31.1	-1.6%	0.2%	0.9%
Heavy fuel oil A	10.4	9.8	9.7	9.4	9.3	-1.3%	-3.1%	-1.6%
Heavy fuel oil B/C	9.5	6.7	4.6	4.8	4.3	-31.0%	3.6%	-9.0%
For electric utilities	5.1	3.1	2.3	1.9	1.7	-26.6%	-14.9%	-14.0%
For others	4.4	3.6	2.3	2.8	2.7	-34.9%	21.8%	-5.6%
LPG (Mt)	13.9	13.3	12.7	12.5	12.3	-4.6%	-1.4%	-1.4%
Crude oil throughput (GL)	156.2	145.1	135.1	136.3	134.7	-6.9%	0.9%	-1.1%

Renewables power generation (FIT+PPA power sources)

The cumulative installed capacity of renewable power generation facilities will expand to 117 GW by the end of FY2026.
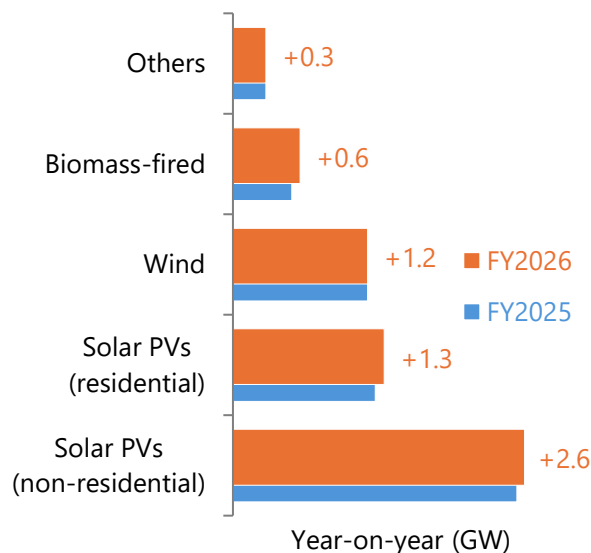
Figure 14 | Installed renewable power generation capacity

Notes: In operation. As of the end of fiscal year.

Figure 15 | Installed renewable power generation capacity (year-on-year changes)
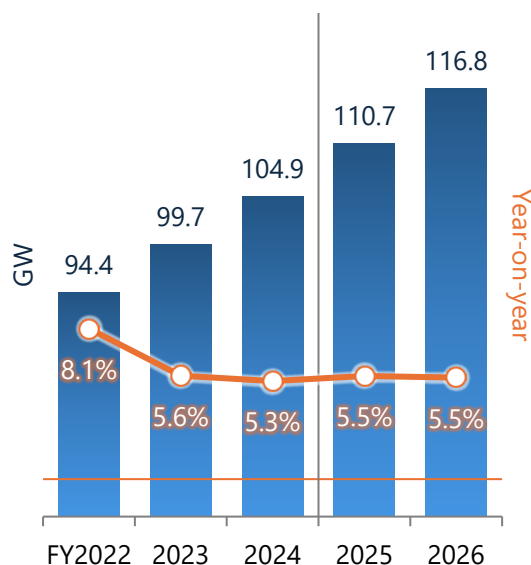
Notes: In operation. As of the end of fiscal year.

The cumulative installed capacity of FIT[2]-eligible power sources (including post-FIT and PPA projects) will reach 117 GW by the end of FY2026 (Figure 14). Non-residential solar PVs, which has constituted the bulk of renewable energy, continues to see a slowdown in the increase of FIT and FIP certified projects. To compensate, projects not reliant on FIT or FIP, such as PPAs, are gradually expanding. However, this expansion is insufficient to significantly reverse the slowing trend. Combined with residential solar PVs, total solar PV capacity will reach 85.5 GW. Onshore wind capacity will increase to around 8 GW as projects that were certified under FIT/FIP but delayed due to environmental assessments and local coordination gradually commence operation. Offshore wind capacity will not see a significant increase in installed capacity by FY2026, as the majority of projects awarded under the Renewable Energy Marine Area Utilisation Act[3] will not commence full-scale operation until 2027 or later. Furthermore, of the total 5.1 GW of awarded offshore wind projects, 1.7 GW have seen the winning bidders withdraw from the projects. This will negatively impact future capacity growth, though the effects of these withdrawals will also become apparent only from 2027 onwards.

The combined generation from FIT/FIP schemes and non-FIT/FIP schemes such as PPAs will reach 233.6 TWh in FY2026 (comprising solar PVs: 105.3 TWh, biomass-fired: 59.1 TWh, small-scale hydro: 46.7 TWh, wind: 18.4 TWh, geothermal: 4.1 TWh), accounting for 23% of total electricity generated. Including large-scale hydro power plants of 30 MW or more, the share of renewable energy in total electricity generated will rise to 26%.

Furthermore, the certified capacity of FIT facilities as of the end of March 2025 stands at 113 GW.

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[2] Large-scale hydro power plants with a capacity of 30 MW or more are not covered by the scheme.

[3] Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities

Should all this certified capacity become operational, the cumulative consumer burden, including operational facilities and transition facilities[4], would amount to approximately ¥59 trillion (Figure 16)[5]. This equates to an electricity price increase of ¥2.1/kWh—representing a 9% rise for residential and 13% for industry users compared to the rate at the start of the FIT scheme (2012).

The Seventh Strategic Energy Plan positions renewable energy as a primary power source, targeting a share of 40%–50% of total electricity generated by FY2040. Achieving this goal requires accelerating the current pace of deployment. Whilst prioritising environmental harmony and consensus-building with local communities, steady advancement is needed for rooftop solar PVs on homes, offices, factories, etc., and for offshore wind, which possesses enormous potential. Furthermore, alongside the increase in renewable energy, steady development of the power grid is also required.

Figure 16 | Cumulative purchase amount under the FIT scheme (for capacities certified or in operation as of the end of March 2025)
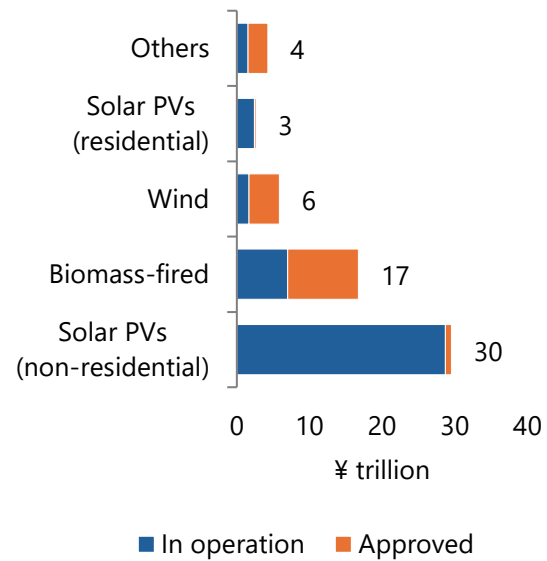
Notes: The purchase period is 10 years for residential solar PVs, 15 years for geothermal and 20 years for other power sources. Includes equipment for which the FIT purchase period has ended.

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[4] Facilities installed before the FIT programme started and enrolled in it after it started.

[5] The remaining purchase period of transitional facilities is also taken into account. Avoidable costs are estimated based on various data. The avoided cost in 2022 soared to ¥22.5/kWh due to high fuel prices, but in 2025 (by mid-October) it had settled down to ¥11.5/kWh and is assumed to remain at this level. However, this value is higher than the previously assumed value of ¥7.7/kWh, which means that the cost paid by consumers is significantly reduced. Assumed plant capacity factors are 24.8% for wind, 13.7% for solar PVs, 70% for geothermal, 45% for hydro and 70% for biomass-fired.

Topic 1 | The economic and energy impacts of wage increases

It is important to implement wage increases that are commensurate with actual capabilities, such as productivity, and that are sustainable.

Historic pay rises to counter persistent inflation

With consumer prices having risen continuously for over four years since September 2021, public expectations for wage increases exceeding inflation are high. The extent of wage improvements can significantly impact people's lives.

The scheduled monthly wages (based on the 'Monthly Labour Survey', for enterprises with five or more employees) rose by 2.1% in FY2024, marking the highest increase in 30 years since FY1994. This trend has continued into FY2025, albeit at a slightly slower pace.

According to the Japanese Trade Union Confederation (RENGO), the average wage increase demanded during the FY2025 spring wage negotiations stood at 6.09%, the highest rate in 32 years since FY1993. The actual wage increase rate also reached 5.25%, marking the second consecutive year of a 5% increase following FY2024. RENGO has indicated its policy of demanding wage increases of 5% or more for FY2026, including amounts equivalent to regular pay rises.

Whilst private final consumption increases due to wage rises, private non-residential investment decreases.

In FY2026, the impact of US tariff policies and heightened uncertainty will act as headwinds against wage increases. Under the Reference Scenario, compensation of employees per capita[6] (nominal wages) will rise by only 2.6%, falling short of the growth seen in the previous two years. However, real wages[7] will increase by

0.7% due to slowing inflation, maintaining the momentum seen since FY2024. From the perspective of improving people's livelihoods, sustained wage increases that outpace inflation are required.

However, a higher wage increase rate is not necessarily better. The spiralling inflation and wage increase during the first oil crisis, which led to 'runaway inflation', serve as a bitter lesson. To analyse the current situation, we have established a '5% Wage Increase Case' for the FY2026 spring wage negotiations, assuming a wage increase of around the same level as the previous year (5%).

In the 5% Wage Increase Case, nominal wages in FY2026 would rise by 1.1% compared to the Reference Scenario (a 3.7% increase compared to FY2025) (Figure 17). The increase in disposable income would cause private final consumption to rise by ¥100 billion (Figure 18). Conversely, accelerated price increases due to the passing on of increased labour costs and pressure on investment funds would cause private non-residential investment to decrease by ¥200 billion. Despite this, GDP would remain broadly flat. This is partly because changes in private inventories (build-up) offsets the downward contribution from factors like private non-residential investment. The scale of changes in private inventories contribution is close to that of private final consumption. However, this build-up of inventory is likely either a trade-off for future production cuts or 'unintended'.

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[6] Compensation of employees per capita shows a smaller contribution from regular pay rises if the age composition of employees is relatively even. Consequently, the rate of increase tends to be lower than the wage increase rate shown by the RENGO.
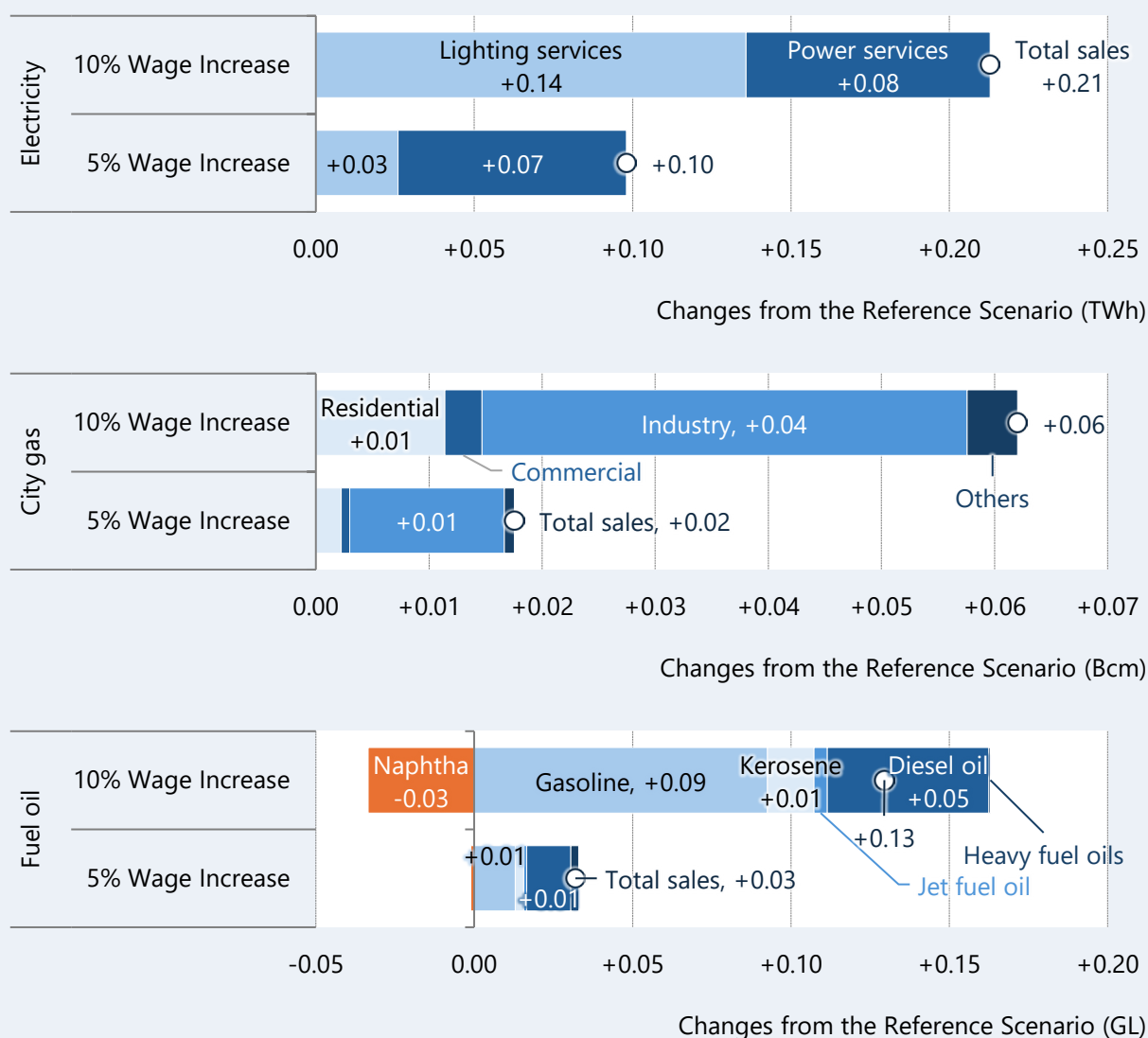
[7] Deflated by consumer price index (all items)

Figure 17 | Impacts of wage increases on economy [FY2026]
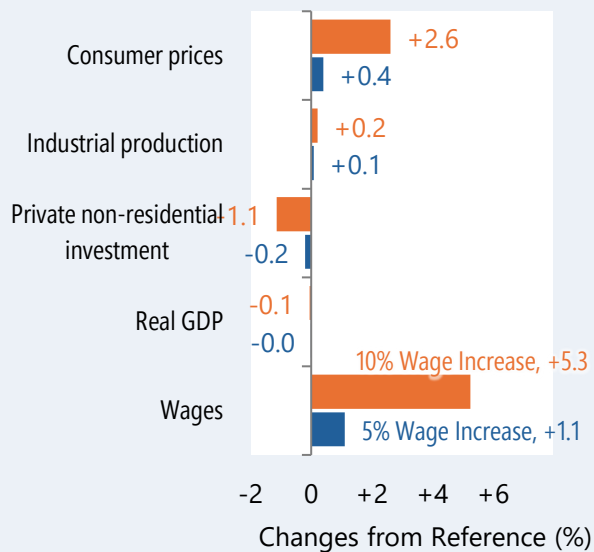
Figure 18 | Impacts of wage increases on real GDP and contributions [FY2026]
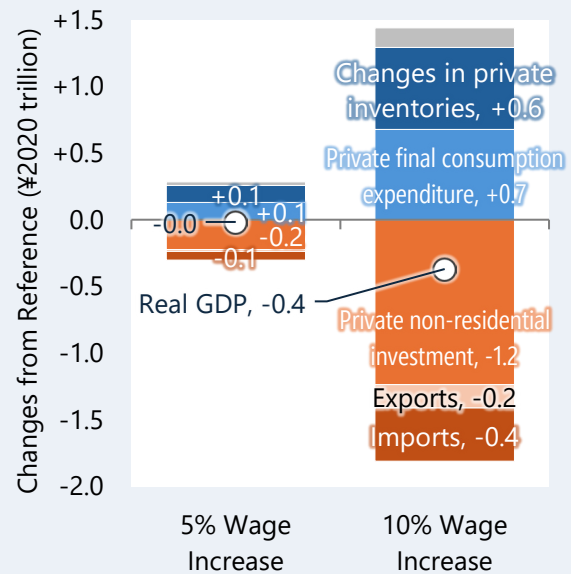
Wage increases would boost energy sales volumes.

In energy sales volume, increased household income would stimulate demand for travel and transport, leading to boost sales by 0.03% for gasoline and by 0.02% for jet fuel oil (Figure 19). In industry, energy consumption would be induced by increased production of goods where demand is rising, such as consumer goods. City gas would increase by 0.05% and electricity by 0.01%. Furthermore, diesel oil would rise by 0.04% due to increased movement of people and goods. Conversely, demand for capital goods and related production goods would decline, reducing the energy consumption required for their production. Primary energy supply of coal would decrease by 0.02% due to reduced production of crude steel and cement.

Figure 19 | Impacts of wage increases on energy sales volume and contributions [FY2026]

Electricity

| 10% Wage Increase | Lighting services +0.14 | Power services +0.08 | Total sales +0.21 |
| 5% Wage Increase | +0.03 | +0.07 | +0.10 |

0.00   +0.05   +0.10   +0.15   +0.20   +0.25

Changes from the Reference Scenario (TWh)

City gas

10% Wage Increase	Residential +0.01	Industry, +0.04	Others	+0.06
	Commercial			
5% Wage Increase	+0.01	Total sales, +0.02		

0.00   +0.01   +0.02   +0.03   +0.04   +0.05   +0.06   +0.07

Changes from the Reference Scenario (Bcm)

Fuel oil

10% Wage Increase	Naphtha -0.03	Gasoline, +0.09	Kerosene +0.01	Diesel oil +0.05
			+0.13	Heavy fuel oils
			Jet fuel oil	
5% Wage Increase	+0.01	+0.01	Total sales, +0.03	

-0.05   0.00   +0.05   +0.10   +0.15   +0.20

Changes from the Reference Scenario (GL)

Too much is as bad as too little.

Furthermore, a numerical experiment was conducted establishing a '10% Wage Increase Case' which substantially raised the wage increase rate for the FY2026 spring wage negotiations to 10%—double that of the 5% Wage Increase Case[8].

In FY2026, nominal wages would increase by 5.3% compared to the Reference Scenario, yet real GDP would decrease by 0.1%. Excessive wage increases would squeeze corporate investment funds to finance them, significantly reducing capital expenditure. Accelerating inflation, triggered by soaring labour costs, would erode international competitiveness. Reduced exports and increased imports would then exert downward pressure on real GDP through external demand. Excessively high wage increases risk hindering economic expansion rather than fostering a 'growth-oriented economy driven by wage increases'. In the medium term, reduced investment—the very source of expanding supply capacity and productivity gains—could stifle the potential for future wage increases.
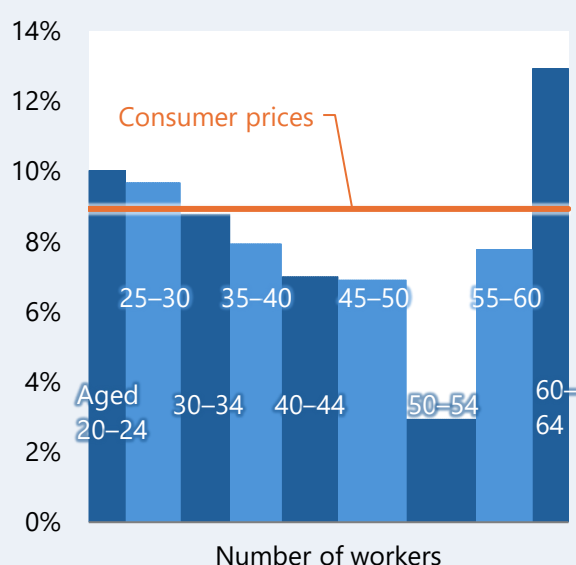
In energy sales volume, all of city gas, electricity and fuel oil would be boosted beyond the 5% Wage Increase Case. Meanwhile, primary energy supply of coal would decrease by 0.2%.

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8 The highest pay rise rate since the formation of RENGO was 5.95% in FY1990.

Uneven wage increases are unlikely to directly contribute to a virtuous economic cycle.

However, the stimulus effect of wage increases on private final consumption is, in reality, not so reliably predictable. The aforementioned analysis is based on the assumption that wage increases benefit everyone equally. In reality, current wage increases are skewed towards younger generations, as symbolised by the substantial rise in starting salaries (Figure 20)—which, given the labour shortages felt by companies and the age composition of the workforce, is in a sense a natural consequence. However, this younger generation exhibits a limited propensity to increase consumption in response to wage rises (Figure 21). Conversely, elder generations, such as the baby boomers' children (aged 50–54), who have experienced substantial declines in real wages, possess both a large population volume and a high propensity to consume. Consequently, they are driving a significant decline in consumption.

Figure 20 | Increase rates of scheduled monthly wages and consumer prices [2019–2024]

Figure 21 | Gross elasticity of household consumption expenditure with respect to regular income
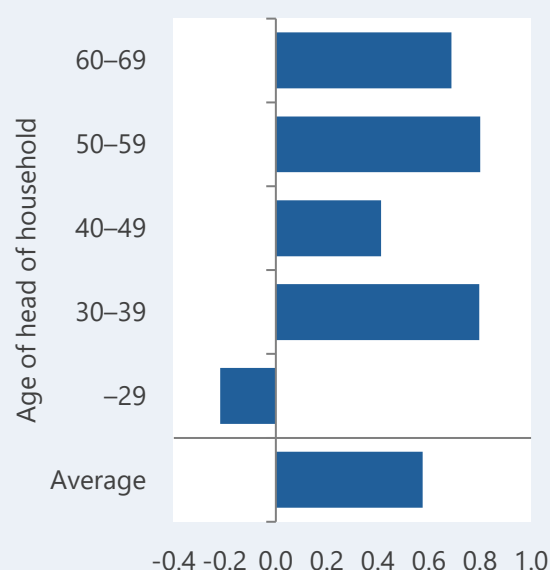

Sources: Ministry of Health, Labour and Welfare 'Basic Survey on Wage Structure', Ministry of Internal Affairs and Communications 'Consumer Price Index'

Notes: Real, equivalent basis. Workers households
Source: Estimated from Ministry of Internal Affairs and Communications 'Family Income and Expenditure Survey'

It is only natural for individuals to desire substantial pay rises. However, wage increases reliant solely on revising the labour share lack sustainability. Moreover, their effects are not always as anticipated. Balanced and appropriate wage increases—commensurate with actual performance such as productivity gains, sustainable over time, and not excessively skewed towards specific groups—are what both society and individuals ought to aspire to, in the short and medium term alike.

Topic 2 │ Impact on the 3Es according to the degree of nuclear utilisation

### Nuclear contributes to the '3Es'.

The Strategic Energy Plan approved by the Cabinet in February 2025 shifted the stance on nuclear power generation from 'reducing dependence as much as possible' to 'maximising its utilisation'. In reality, only 27 power plants have applied for compliance reviews under the new regulatory standards, of which 18 have passed the review of changes in reactor installation, and only 14 have resumed operations. Currently, restart progress is more advanced in western Japan, which is cited as one factor behind the east–west disparity in electricity supply.

Figure 22 │ Electricity bills of model households
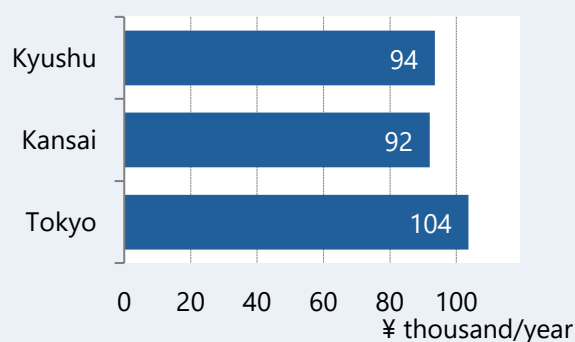
Notes: Metre rate lighting services, 260 kWh/month, 30 amperes. Based on rates in December 2025.
Source: Calculated from each company's tariffs.

Figure 23 │ Base CO_2 emission factor (unadjusted) for electricity [FY2024]
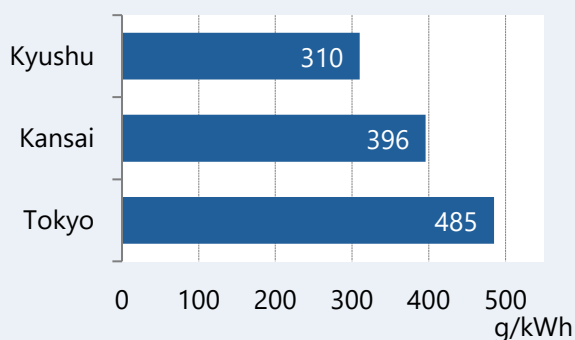

Source: The electric utilities' websites

Amidst this situation, in November the Governor of Niigata Prefecture announced approval for the restart of Unit 6 at the Kashiwazaki-Kariwa Nuclear Power Station, bringing the prospect of a second restart in eastern Japan and the first for Tokyo Electric Power Company into view. Furthermore, in December the Governor of Hokkaido announced consent for the restart of Unit 3 at the Tomari Power Station. Other developments include plans for a new reactor at Kansai Electric Power Company's Mihama Power Station.

Figure 24 │ Minimum reserve margin for electricity supply in the Tokyo Area [August 2026]
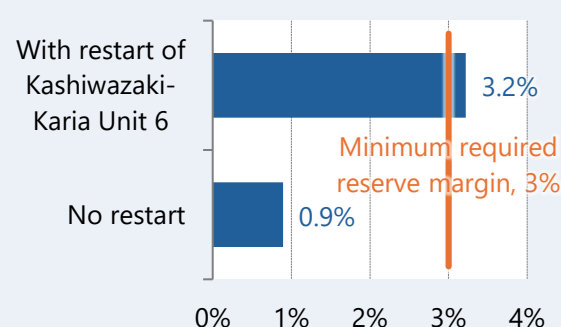
Note: Minimum reserve margin for peak demand during severe weather conditions (H1)
Source: Calculated from Agency for Natural Resources and Energy data

Here, we assess the impact on the '3Es'—energy security, economic efficiency and environmental compatibility—resulting from differences in nuclear utilisation.

Case configuration

The Reference Scenario assumes that two additional nuclear power plants will resume operations during FY2026. For the purposes of analysis, the following four separate cases were established:

1/ Low Case—No new restarting plants by the end of FY2026 due to lack of local consent.

2/ High Case—One reactor restarts earlier than the Reference Scenario.

3/ 18-unit Case—Hypothetical. Eighteen reactors that passed the review of changes in reactor installation operate at 80% capacity factor.

4/ 28-unit Case—Hypothetical. Twenty-seven reactors that applied for the new regulatory

standards compliance review, plus one next-generation nuclear power plant, operate at 80% capacity factor.

Economic efficiency

The increased utilisation of nuclear power generation will reduce fossil fuel import expenditure and lower the unit cost of electricity. Containing fuel import payments inflated by the weak yen and cost-push inflation will increase real income and, consequently, real GDP.

Energy security

The heightened risk of energy supply disruptions following Russia's invasion of Ukraine and the deterioration of the Middle East situation remains a major concern. As the utilisation of domestically produced nuclear progresses, LNG imports will simultaneously decrease, leading to an increase in energy self-sufficiency rates. Given

that uranium fuel is used over several years, stockpiling effects can also be anticipated.

Environmental compatibility

CO_2 emissions will decrease even when accounting for the increase attributable to the economic boost resulting from the utilisation of nuclear power generation. In the 28-unit Case, emissions would be reduced by 32.5% compared to FY2013.

Ensuring a smooth restart while avoiding hasty action

Some plants remain under ongoing review, whilst others have met the new regulatory standards but have not yet actually resumed operations. Facilitating the smooth restart of plants through appropriate reviews tailored to each plant's circumstances and cooperation from host municipalities will contribute to strengthening the 3Es.

Table 11 | Impact based on the volume of nuclear power generation [FY2026]

		Low	Reference	High	18-unit	28-unit	Changes from Reference			
							Low	High	18-unit	28-unit
Nuclear	Restarted nuclear plants	14	16	16	18	28	-2	-	+2	+12
	Power generation (TWh)	92.4	106.2	109.1	126.0	204.5	-13.8	+2.9	+19.8	+98.3
	Share in total electricity generated	9.1%	10.4%	10.7%	12.4%	20.1%	-1.4pt	+0.3pt	+1.9pt	+9.7pt
Economy	Real GDP (¥2020 trillion)	597.6	597.7	597.7	597.8	598.3	-0.09	+0.02	+0.13	+0.64
	Trade balances (¥ trillion)	-0.53	-0.44	-0.43	-0.32	0.18	-0.09	+0.01	+0.12	+0.62
	Total fossil fuel imports (¥ trillion)	17.41	17.30	17.28	17.14	16.49	+0.11	-0.02	-0.16	-0.81
	LNG	4.03	3.93	3.90	3.77	3.15	+0.11	-0.02	-0.16	-0.77
	Electricity unit cost[1] (¥/kWh)	8.46	8.36	8.34	8.23	7.68	+0.10	-0.02	-0.14	-0.69
Energy	Primary energy supply	398.5	399.2	399.4	400.3	404.4	-0.7	+0.2	+1.1	+5.1
	Nuclear (Mtoe)	19.8	22.7	23.3	26.9	43.5	-2.9	+0.6	+4.2	+20.8
	Natural gas (Mt of LNG eq.)	80.3	78.2	77.8	75.2	63.2	+2.1	-0.4	-3.0	-15.0
	LNG imports (Mt)	60.2	58.6	58.2	56.3	47.1	+1.6	-0.3	-2.3	-11.5
	Self-sufficiency rate	18.3%	19.2%	19.4%	20.5%	25.4%	-0.9p	+0.2pt	+1.3pt	+6.3pt
Environment	CO_2 emissions (Mt)	873	868	867	861	834	+5	-1	-7	-34
	Changes from FY2013	-29.4%	-29.8%	-29.8%	-30.3%	-32.5%	+0.4pt	-0.1pt	-0.5pt	-2.7pt

Note: 1. Fuel and FIT purchasing costs divided by total electricity generated.

Witnessing the rapid advancement and widespread adoption of AI, perspectives on electricity demand—once thought to decline indefinitely—are shifting. The yen's exchange rate, at its weakest level in 40 years, is pushing up the cost of imported goods, and fossil fuels are no exception. Against this backdrop, voices expressing hope

for nuclear power generation—capable of supplying low-carbon, stable and affordable electricity—are increasingly being heard. To meet these expectations and 'maximise the use' of nuclear, it is essential not only to ensure safety in power generation but also throughout the entire back-end process, and to gain public understanding.

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