

The 449th Forum on Research Works 24th December 2024

# Economic and energy outlook of Japan for FY2025

Uncertainty casting a shadow over the path to recovery

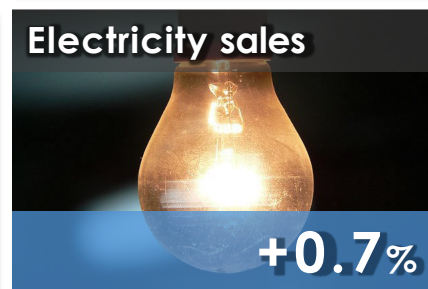
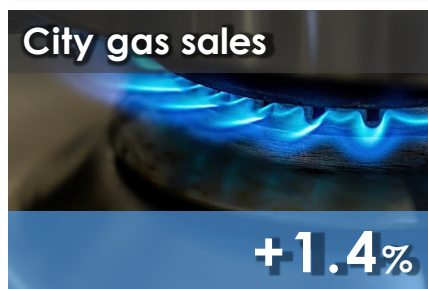
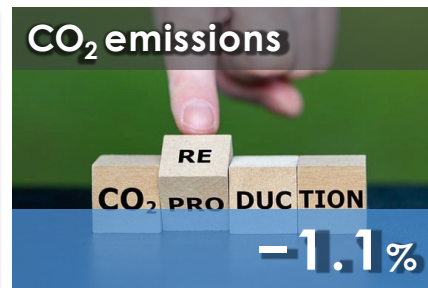
The Institute of Energy Economics, Japan

YANAGISAWA Akira

R. Hirose • K. Ito • K. Kimura • T. Morimoto • Y. Nakano • Y. Ninomiya • C. Onda • Y. Shibata • W. Sugino

FY2025

# Towards recovery. Suspicious clouds are a concern.



- Geopolitical risks
- Trade war**
- Insufficient productivity gains
- Bad interest rate rise
- Non-functioning of the Security Council
- Infectious disease
- US-China conflict*
- Middle East**
- Exchange rate fluctuations**
- Undecided politics
- Extreme weather
- Populism**
- Decline in the effectiveness of international law
- China's low growth**
- Block economy*
- Ukraine**



# Key 'assumptions' of the Reference Scenario

## Global economy

- The US economy is heading for a soft landing due to lower inflation and a strong labour market.
- European economy will recover moderately on the back of monetary easing, although Germany, the largest economy, stagnates.
- Asian economies, some of which are slowing down, will not stall significantly and maintain growth of around 5%.

## Import c.i.f. prices

Nov. 2024 → FY2024, average → FY2025

- Crude oil: \$78/bbl → 80 → 67
- LNG: \$626/t → 611 → 548  
(\$12.1/MBtu → 11.8 → 10.6)
- Steam coal: \$154/t → 154 → 153

Referring to Morikawa "Outlook for International Oil Market in 2025", Yanagisawa "Outlook for Gas Market in 2025" and Takahashi "Coal Market Outlook for 2025"

## Exchange rates

Nov. 2024 → FY2024, average → FY2025

- ¥154/\$ → 152 → 145

## Nuclear power generation

- A total of 14 reactors have restarted, with the addition of Onagawa 2 and Shimane 2.
- Another unit will be added in FY2025. Electricity generated will exceed 100 TWh for the first time since FY2011.

## Temperature

- Winter in FY2024 is normal (JMA)  
—**colder** than the previous year (−1.0°C).
- Normal thereafter—**much cooler** (−2.0°C) summer in FY2025 and **slightly warmer** (+0.2°C) winter than the previous year.

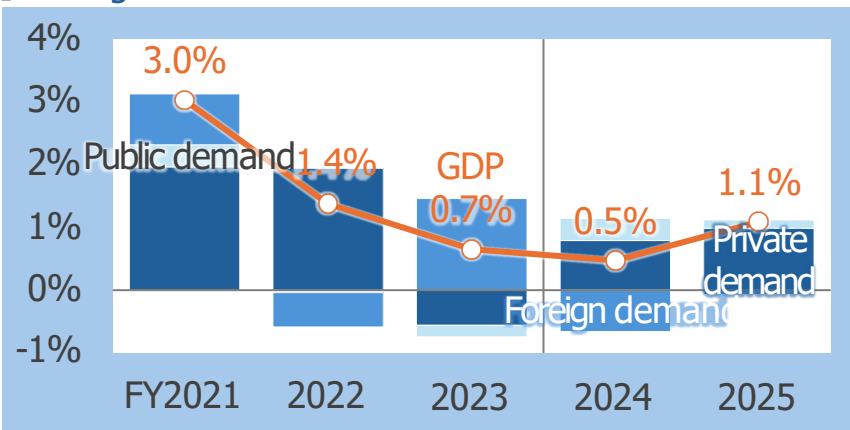
# Economy moves into recovery. Price increases gradually eases.



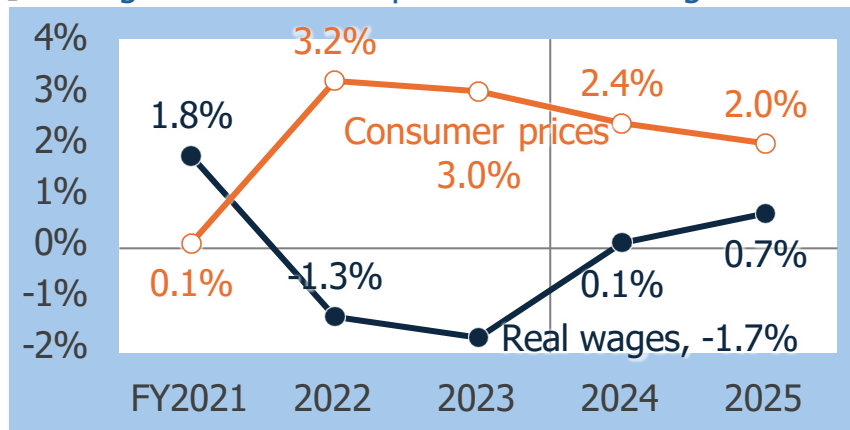
- Japanese economy will accelerate to 1.1% growth, well above potential growth rates. Beware of supply constraints.
- Private demand will lead the recovery, with non-residential investment rising by 2.1% and consumption exceeding ¥300 trillion for the first time in seven years. Foreign demand, which fell to a negative contribution in FY2024, will make an almost zero contribution.

- Prices continue to rise, but consumer prices will decelerate slightly to 2.0%, partly due to a correction of the extreme depreciation of the yen and a fall in international energy prices.
- Wages, which had been undercut by price increases, gradually start to turn up and turn into a clear increase in real term. There, however, are uncertainties about sustainability.

## GDP growth rates and contributions



## Changes in consumer prices and real wages

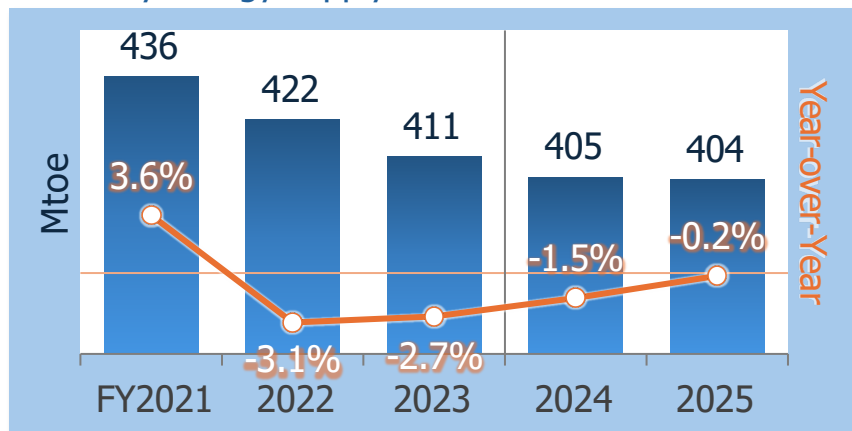


Note: Real wages are employer compensation per capita/consumer prices.

# Decline in energy consumption shrinks. CO<sub>2</sub> reductions also persist but slow down.

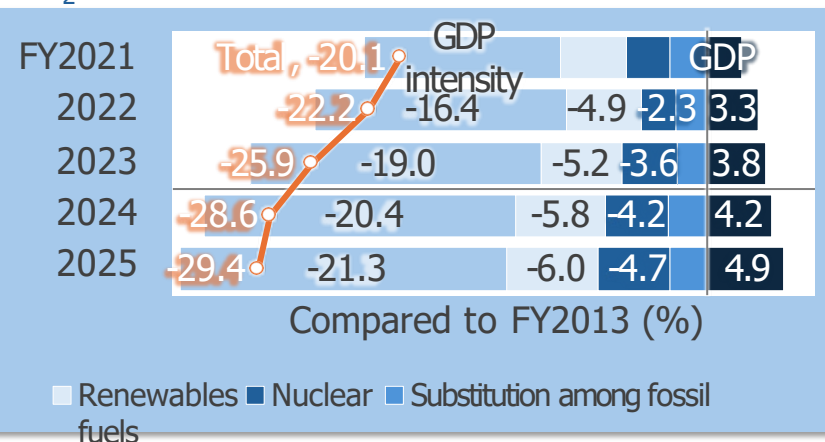
- Energy consumption will fall for the three consecutive year in FY2024 by 1.5%, mainly due to stagnation in manufacturing production.
- Energy consumption will decline slightly in FY2025 by 0.2% as a cooler summer offsets the contribution of increase due to a recovery in economic activity. If temperatures remain at the same level as the previous year, it will increase by 0.8% for the first time in four years.

## Primary energy supply

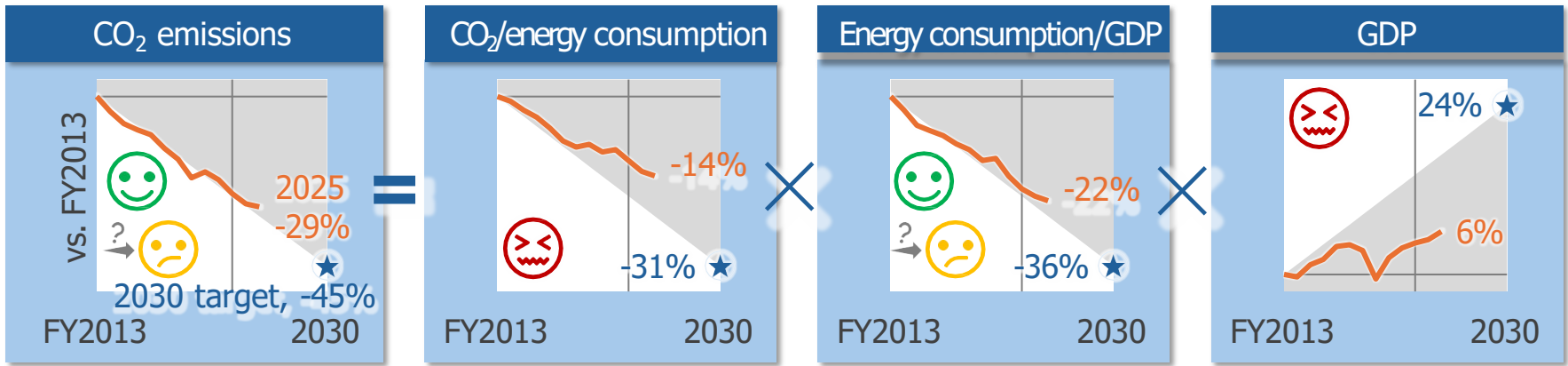


- CO<sub>2</sub> emissions will decline for four year in a row, falling below 900 Mt. The rate of decline in FY2025, however, is only 1.1%.
- The contribution of macro energy efficiency (**GDP intensity**) to CO<sub>2</sub> reduction is significant. Renewables, the second largest, will reduce additional reduction contribution in FY2025 due to a slowdown in the introduction of FIT power sources and levelling off hydro.

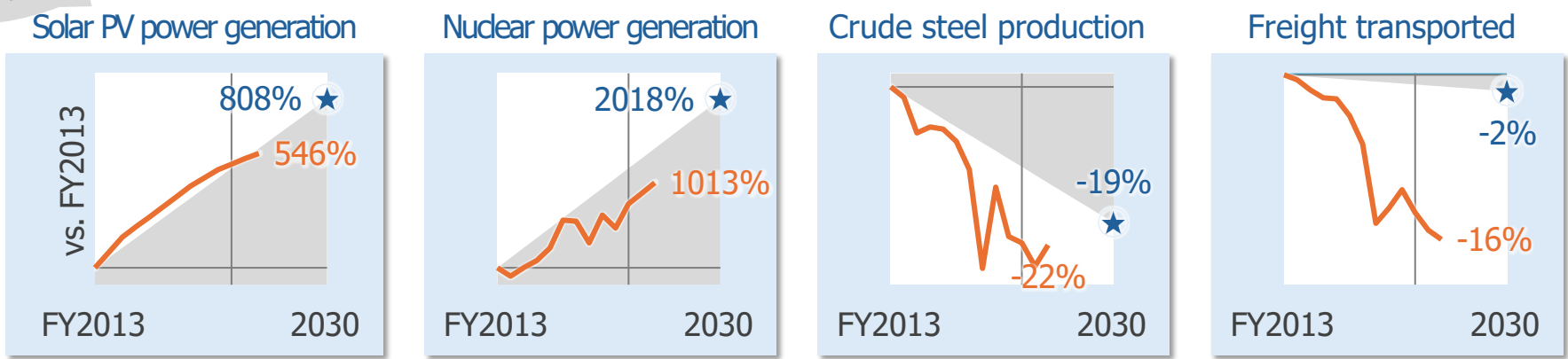
## CO<sub>2</sub> emissions and contributions



# Approaching the CO<sub>2</sub> target in an unexpected way. Concerns about 'on-track'.



For instance



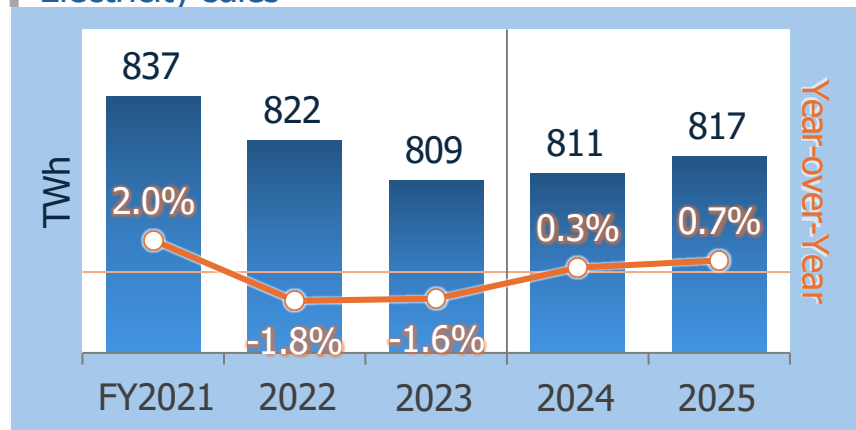
# Even as electricity demand increases, power supply low-carbonisation progresses.



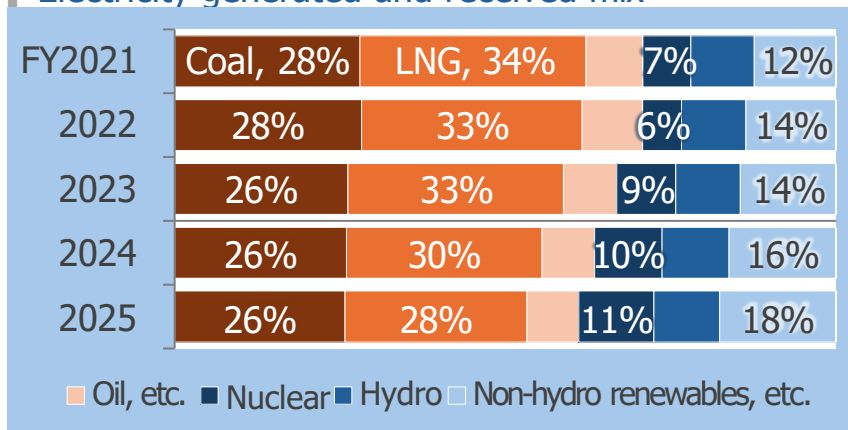
- Electricity sales will rise by 0.7% for two years in a row. Increase in sales for power contracts driven by the tailwind of a recovery in production activity will contribute to it.
- Space cooling demand will fall sharply as the summer will be 2°C cooler than the previous year. Sales for lighting contracts, the most affected, will fall by 2.0%.
- Sales total +3.4% if temperatures remain at the previous year's level.

- Electricity generated and received will also increase as demand recovers. The figure below 900 TWh ends in FY2023 single year.
- Other renewables, such as solar PVs, and nuclear will expand their share of the composition by more than 1 percentage point each.
- Meanwhile, thermal power is expected to reach the 50% level in the near future, with LNG-fired at less than 30%.

## Electricity sales



## Electricity generated and received mix

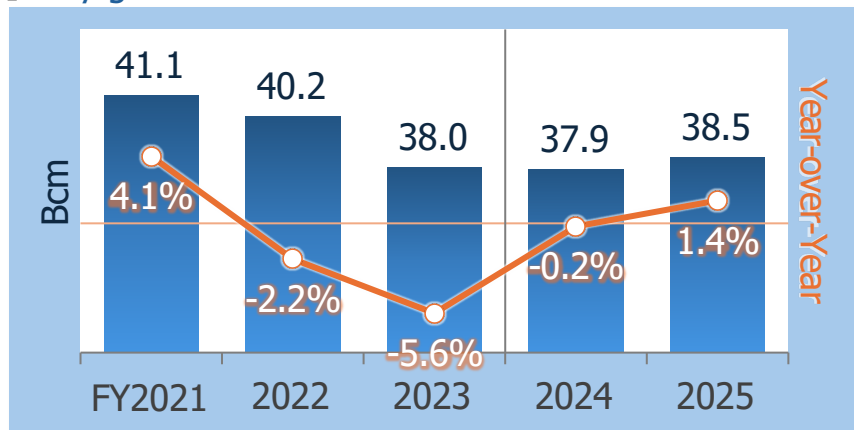


# City gas bottoms out and starts to increase, whilst fuel oil declines ease.

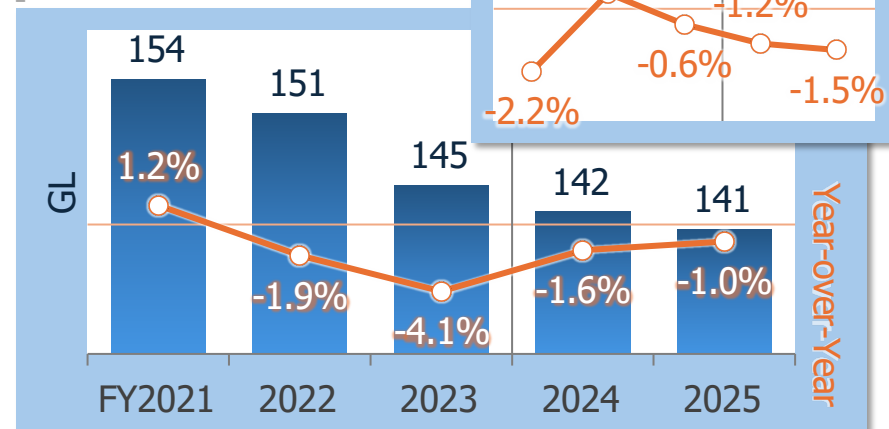
- City gas sales will increase for the first time in four years by 1.4%. It, however, is far from the 40 Bcm level due to the significant impact of the fall in FY2023.
- Whilst sales for industry will increase for the first time in four years (+3.1%) with the backdrop of a recovery in manufacturing production, those for all other uses will be below the previous year's level.

- Fuel oil sales will experience the smallest decline in the last four years, supported by naphtha, which is increasing due to increased petrochemical production.
- The effects of the jet fuel oil recovery that followed the relaxation of behavioural restrictions will be largely exhausted.
- On the other hand, gasoline's decline, which has been gradual, will speed up slightly.

## City gas sales



## Fuel oil sales





# Dark clouds of uncertainty from the U.S.

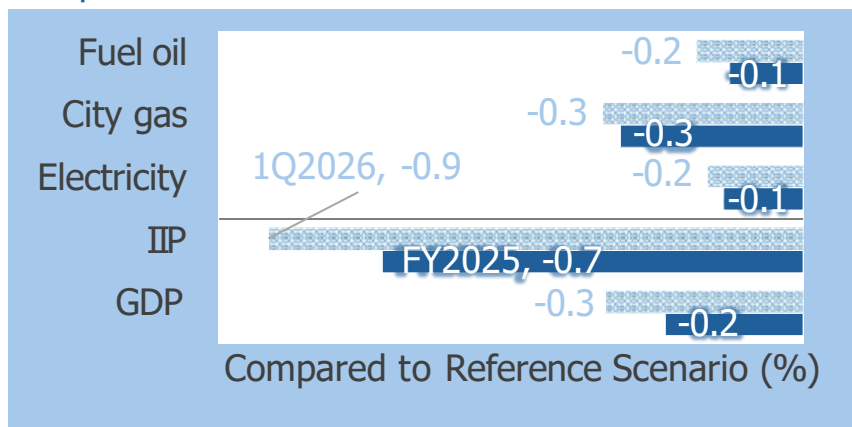


MAGA

## 1/ If the tariff...

- Additional and retaliatory tariffs of 10% are assumed among the three regions US–Europe– China and between the US and other regions\*<sup>1</sup>.
- Japan's GDP and industrial production (IIP) would fall by 0.2% and 0.7% respectively, triggered by the fall in foreign demand, and the negative impact is likely to further increase\*<sup>2</sup>.
- Energy sales would also fall by 0.1% to 0.3%\*<sup>2</sup>.

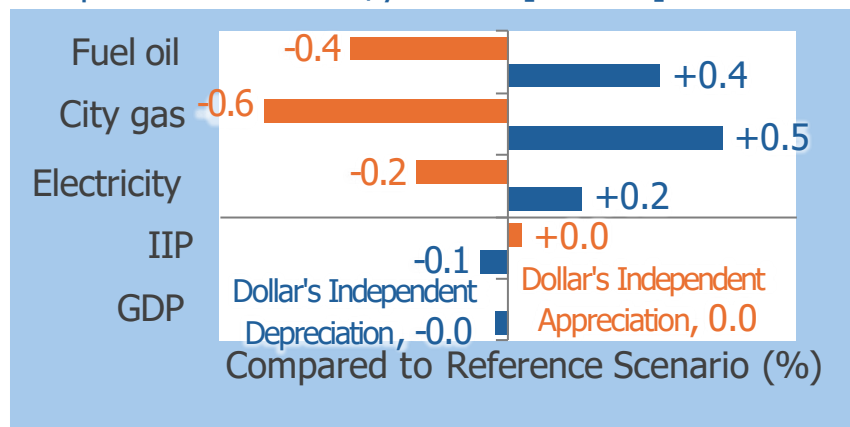
### Impacts of tariff increases



## 2/ If the exchange rate...

- The dollar's independent appreciation** (5%, equivalent to ¥7/\$ against the yen), combined with the recent trend of simultaneous appreciation of the dollar and oil, would drown out any macro benefits of a weaker yen.
- Conversely, **the dollar's independent depreciation** (5%) accompanied by lower oil prices would be slightly negative for macro economy. On the other hand, it would be a tailwind for price inflation control and energy sales.

### Impacts of the dollar/yen rate [FY2025]



\*1: Referring to Scenario A of IMF "World Economic Outlook" (Oct. 2024) \*2: IEEJ estimates

Notes: Assuming a uniform 5% change in the dollar against major currencies. Against the yen, ±¥7/\$ from the Reference Scenario of ¥145/\$.