

# Energy Crisis and its Impact on Paths for Carbon Neutrality

—Subsidy Race or Paths for International Cooperation—

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- Developed countries' governments have been strengthening the efforts for **mitigating the impacts on current energy crisis, through the provisions of mechanisms/subsidies for moderating the energy price increases.**
- International race for subsidy provision for green growth has been intensified. **“How” and “to what extent” governments offer support** for the path for green growth have become **the watershed toward attracting private investment.**
- **Move toward “environmental protectionism”** is observed, **at the same time** when bottom-up actions for **international cooperation on climate change begin to be formulated.**
- **Leadership from G7 governments** should be taken to in a concerted manner to bottom-up the international efforts for climate change.

# Comparison of Paths for Green Transformation

	USA	Japan	EU
CN Policy and its Budget	Inflation Reduction Act (369 Billion USD) Infrastructure Investment and Jobs Act: IIJA (88 Billion USD)	Green Transformation Strategy (20 trillion yen of public investment for the coming 10 years)	European Green Deal REPowerEU (250.4 Billion Euro)
Remarks	<ul style="list-style-type: none"><li>Green growth to be achieved from the investment in (1) renewable energy, (2) EV manufacturing, (3) industry decarbonization, and (4) building energy efficiency improvement.</li></ul>	<ul style="list-style-type: none"><li>Comprehensive approach to promote 14 technology areas with regulation and incentives</li><li>20 trillion yen of public funds will be provided to invite altogether 150 trillion yen of public-private investment.</li></ul>	<ul style="list-style-type: none"><li>Fit for 55 package to involve economic measures (EU-ETI, CBAM), regulatory approach and support for the poor.</li><li>Completely independent from Russian natural gas import by 2030, of which approach should be in line with green growth.</li></ul>

# Global Governments Spending on Clean Energy Transition

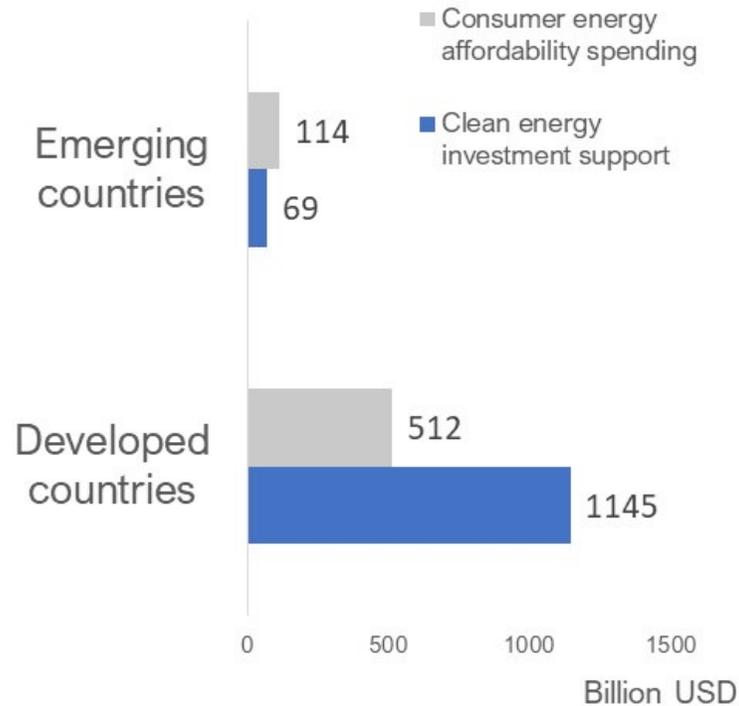


- Electricity networks
- Energy access
- Energy affordability
- Energy-efficient buildings and industry
- Fuels and technology innovation
- People-centred transitions
- General
- Low-carbon and efficient transport
- Low-carbon electricity

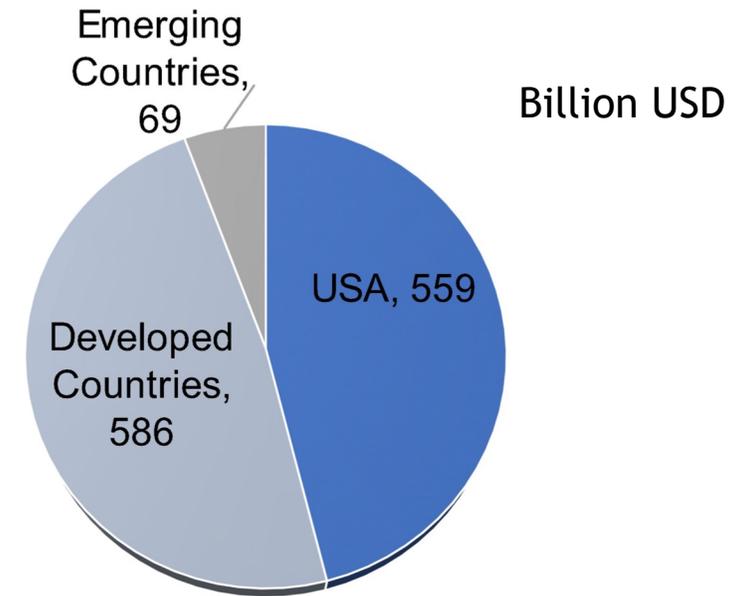
Source : International Energy Agency (2022) "Governments Energy Spending Tracker"

# Global Governments' Energy Spending

## Governments' Energy Spending

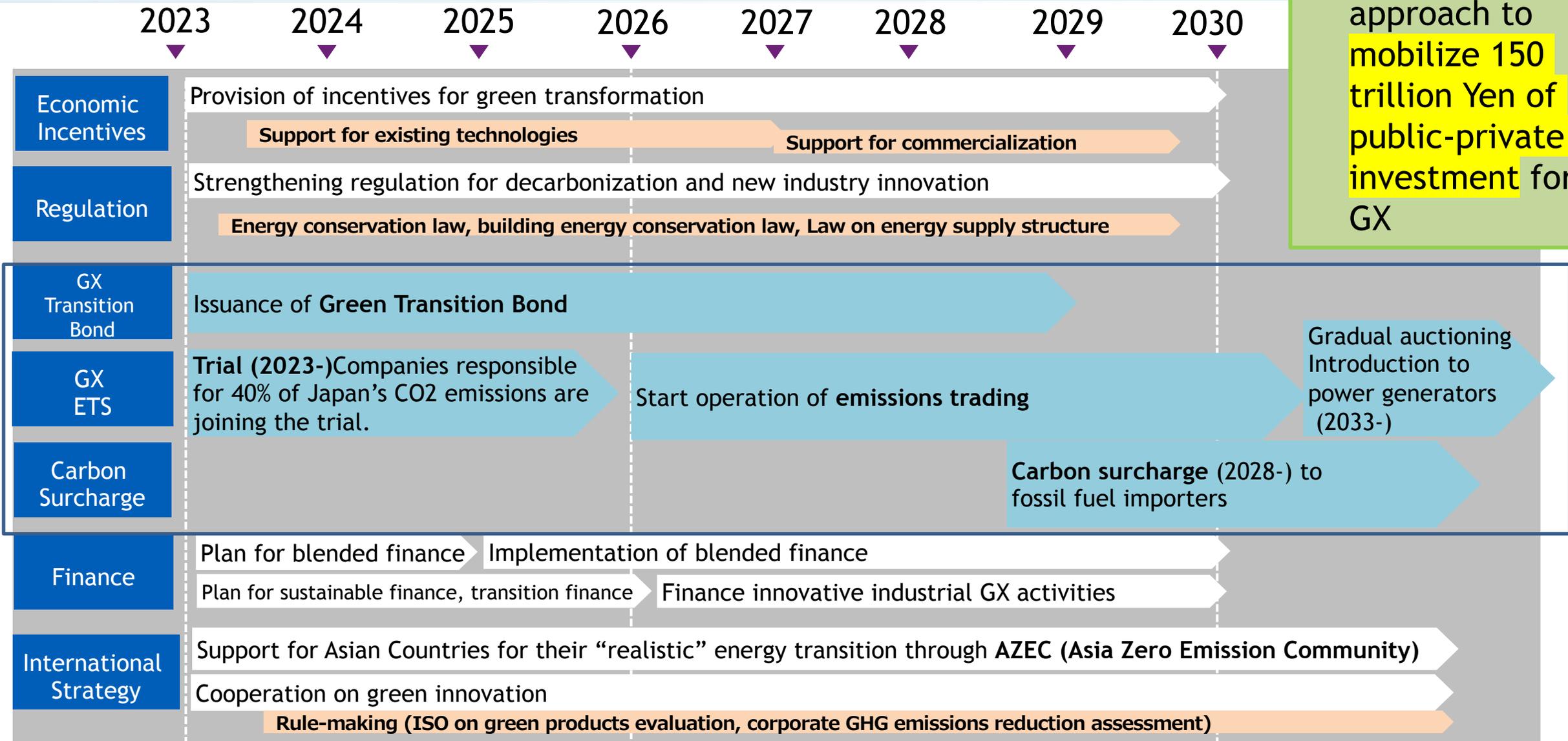


## Governments' Clean energy Investment Support



Source : Diagrams Created from International Energy Agency (2022) "Governments Energy Spending Tracker"

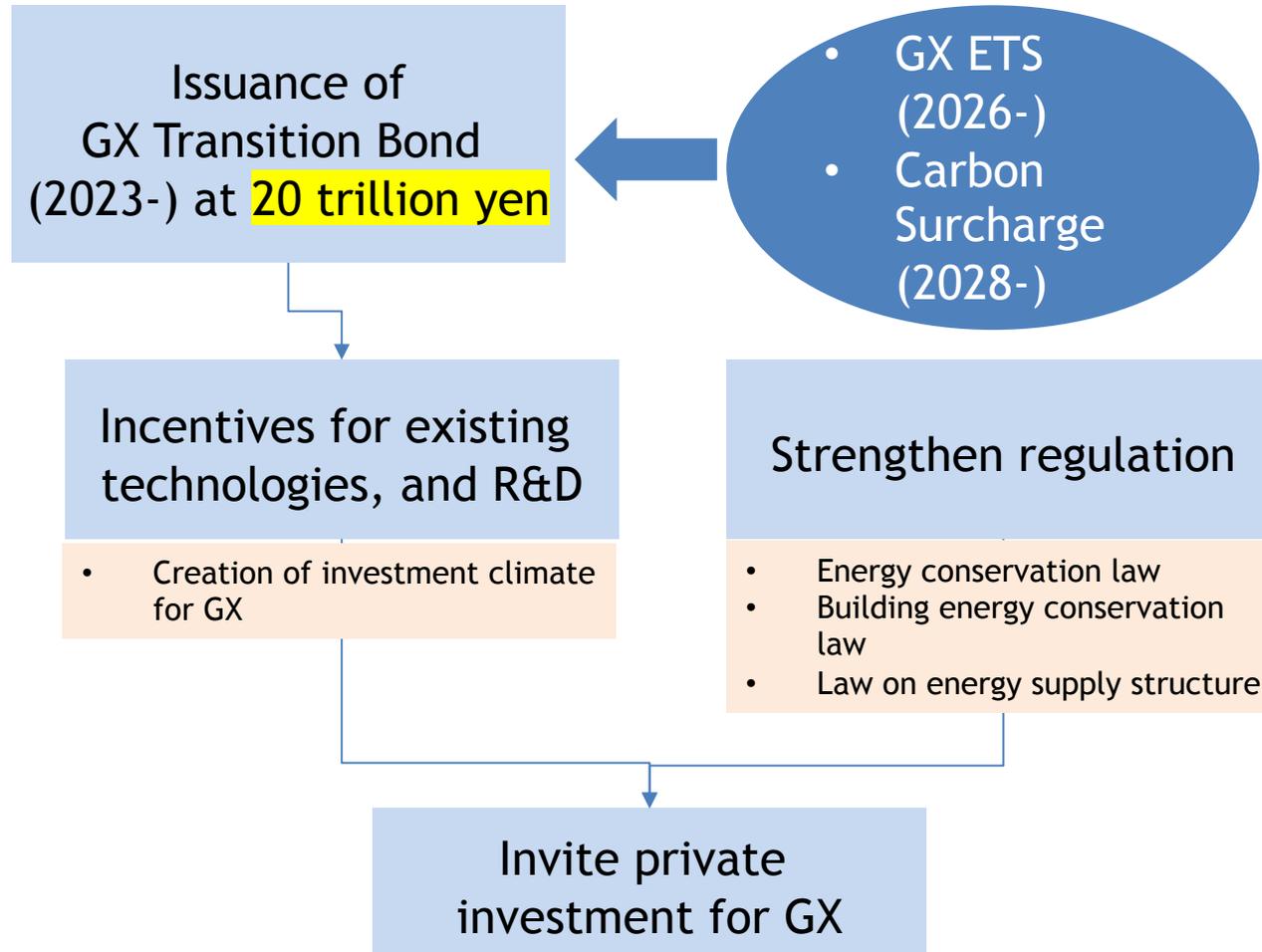
# Roadmap for Japan's Green Transformation



- Comprehensive approach to mobilize 150 trillion Yen of public-private investment for GX

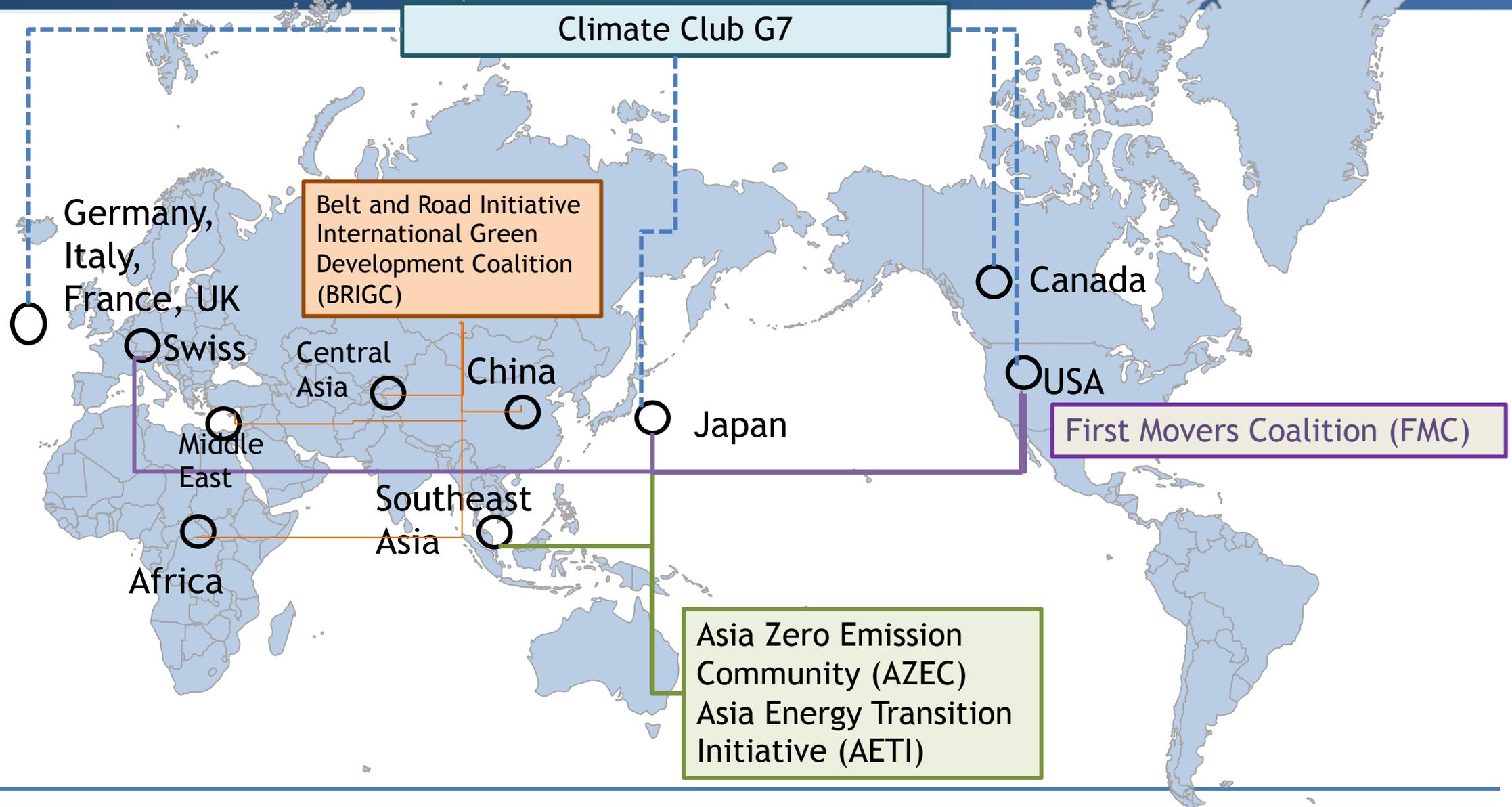
# Image of Japan's Carbon Pricing

- Comprehensive approach to mobilize 150 trillion Yen of public-private investment for GX



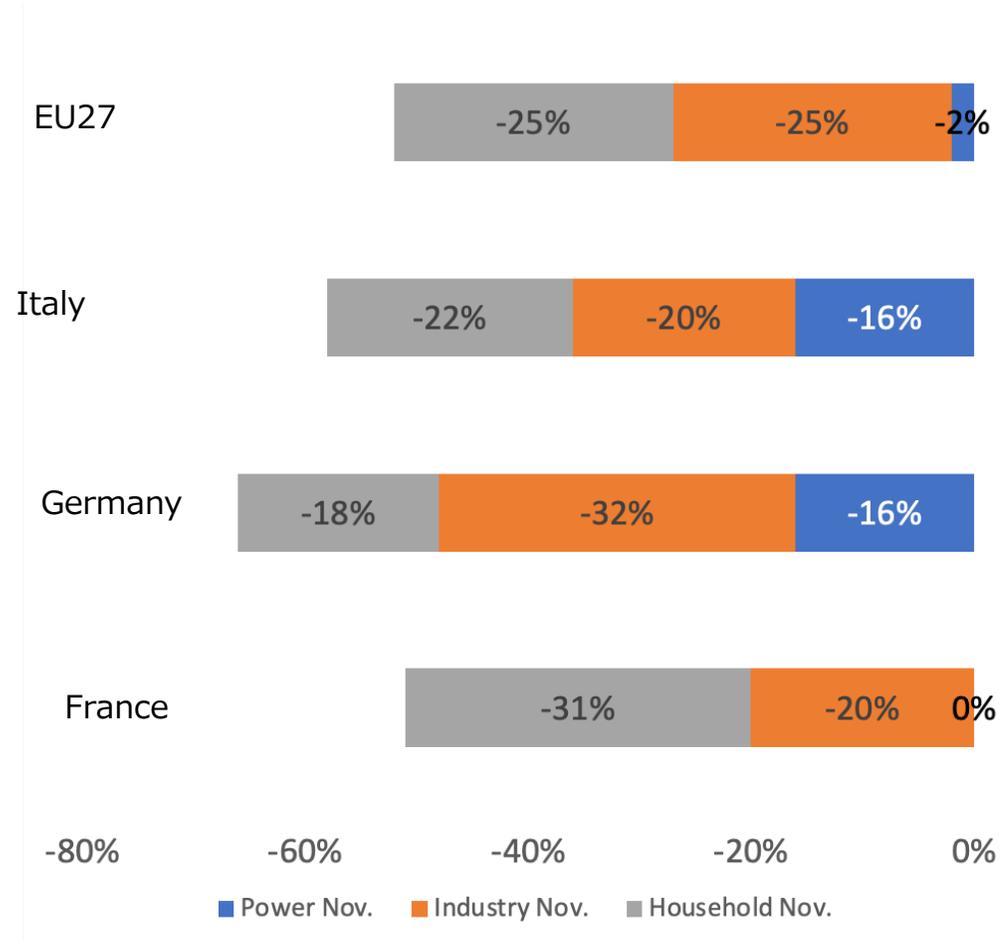
- GX economy transition bond (20 trillion yen for 10 years) will be issued from 2023. Funds for redemption will be refund from carbon pricing including GX-ETS (from 2026), and carbon surcharge (from 2028).
- GX-ETS: Emissions trading will start from 2026 (trial phase is being implemented already with the participating companies CO2 accounting for 40% of Japan's total).
- Carbon Surcharge: Carbon surcharge will be placed on fossil fuel importers from 2028.

# International Cooperation or Competition?



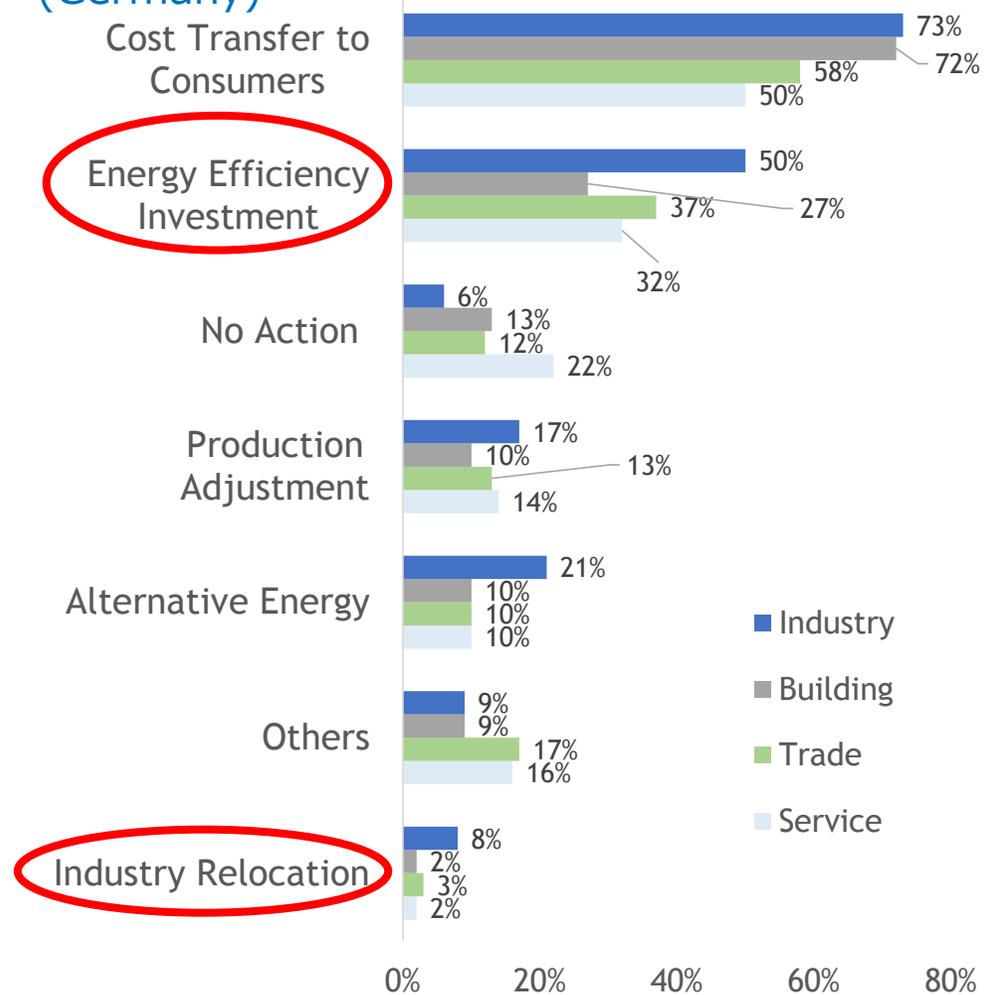
# EU: Path for Ending Russian Gas Reliance, and Industry's Concerns

European Gas Demand Growth (November, 2022 vs November 2021)



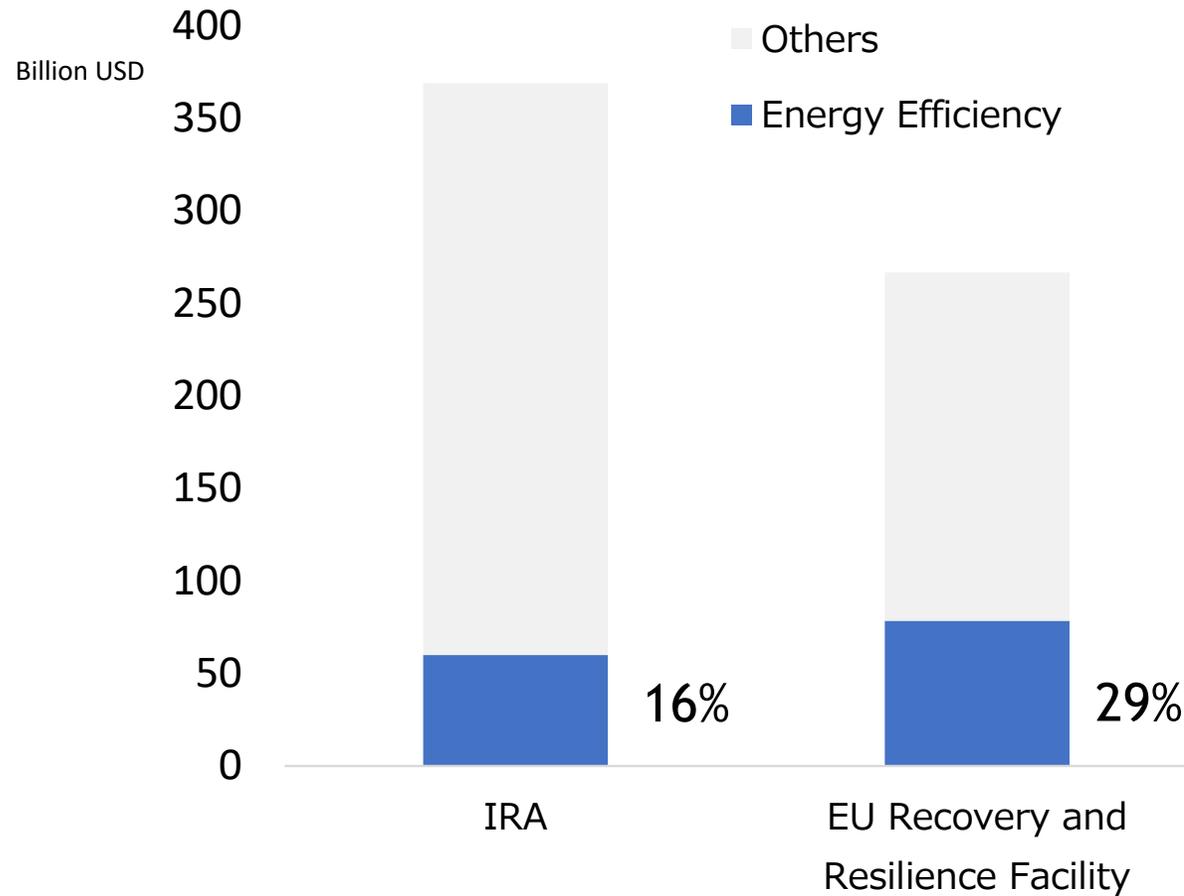
Source : Bruegel (2022). "European Gas Demand Tracker"

Reaction to Electricity, Gas and Fuel Price Increases (Germany)



Source : Deutsche Industrie- und Handelskammer, DIHK.

### US Inflation Reduction Act and EU Recovery and Resilience Facility



Source : Congressional Budget Office (2022), European Commission (2022).

- Climate Club

- G7 members agreed to establish the “Climate Club” with a view to accelerate climate action and increasing ambition, with a particular focus on **the industry sector**.
  - Members would share best practices.
  - Transforming industries to accelerate decarbonization building on the existing initiatives such as Industrial Decarbonization Agenda, and the Hydrogen Action Pact.
  - Boosting international ambition through partnerships and cooperation to encourage climate action.

- Asia Zero Emission Community (AZEC)

- *Japan and Indonesia jointly announced an initiative toward realizing the Asia Zero Emission Community (AZEC) concept on 14th November 2022 in Bali, on the side-lines of the G20 Summit. Both countries believe that Asia, as the center of global economic growth, will become a driving force for the world economy as well as a model for cooperation in realizing a clean, sustainable, just, affordable, and inclusive energy transitions while taking into account different national circumstances. Security of supply, affordability, and people-centered are the main keys in the energy transition process to achieve the goal of carbon neutrality/net zero emission to enable this region to lead the global energy transition process without compromising economic development.*

# Reference: International Cooperation or Competition? (2)

- Carbon Border Adjustment Mechanism
  - Importers will have to start reporting the embedded emissions in the goods (2023-2025).
  - Importers will have to declare annually the quantity of goods and the amount of embedded emissions in the total goods they imported in the preceding year, and surrender the CBAM certificates.
  - CBAM will apply to: cement, iron and steel, aluminium, fertilizers, electricity and hydrogen.