

To Enhance the Resilience of the Energy Supply-Demand Structure

- Recent developments in the Middle East have heightened risks to the supply of crude oil and petroleum products such as naphtha. With these products being increasingly treated as strategic goods, measures put in place following the oil crises of the 1970s are no longer sufficient on their own.
- Two dimensions of resilience must be pursued: ① immediately addressing risks to fundamentally strengthen the security and stability of fossil fuel procurement; and ② accelerating GX, including nuclear power and domestically produced renewable energy, to strengthen Japan's domestic energy supply-demand structure over the medium to long term. Due to the increasingly globalized supply chains, Japan will work with countries across Asia, the Middle East and beyond to enhance resilience globally.
- *POWERR GX* will pursue these two dimensions of resilience, thereby building a more resilient energy supply and demand structure as the foundation for a strong economy.

Situation in the Middle East

Two Dimensions of Resilience

① Strengthening Security and Stability of Fossil Fuel Procurement



② Accelerating and Strengthening GX

Crisis-Management and Growth Investments under Japan's Growth Strategy

③ Enhancing the Resilience of the Global Energy Supply-Demand Structure, Including Asia

POWERR GX

(Policy Package for Wide Energy and Resources Resilience through GX)

Comprehensive Package for Strengthening Energy Supply and Demand Resilience

POWER GX: Policy Package for Wide Energy and Resources Resilience through GX

- Securing a stable energy supply is critical to people's lives and Japan's growth strategy amid fundamental shifts in global energy dynamics and the rapid expansion of AI use.
- POWER GX will strengthen energy supply and demand resilience in two dimensions: fundamentally strengthening the security and stability of fossil fuel procurement through supply diversification and risk reduction; and accelerating GX through investment in energy transition, supply capacity and efficiency.

Fossil Fuel Supply Diversification and Risk Reduction

1. Reducing Dependence on Specific Routes for Crude Oil and Petroleum Products

- Strengthen resource and fuel supply chains by diversifying supply sources and transport routes, including through the development of guidelines for the stable transportation of crude oil and petroleum products.

(1) Diversifying Crude Oil Procurement and Petroleum Products

- Support stable imports by addressing differences in transportation costs and balancing risks and costs between normal times and emergencies.
- Secure stable maritime transport, including sufficient insurance capacity.
- Support alternative pipelines bypassing the Strait of Hormuz.

(2) Strengthening Supplies of Petroleum Products

- Reflect anticipated naphtha demand in the national crude oil stockpiles.
- Offset differences in transportation costs to diversify supply sources.
- Support investment in crackers using alternative feedstocks and promote chemical recycling.
- Strengthen supply systems for chemical intermediates at risk of disruption.

4. Enhancing Energy Resilience through POWER Asia

- Oil-importing countries: enhance energy supply-demand resilience through Japanese GX products and Japan-led international collaborative research.

Investment in Energy Transition, Supply Capacity and Efficiency

- Revise Sector-Specific Investment Strategies and accelerate the following measures.

2. Reducing Fossil Fuel Dependence / Improving Energy Self-Sufficiency

(1) Maximizing Nuclear Power, with Safety as the Top Priority

- Promote R&D and investment in next-generation advanced reactors, accelerate back-end measures, and enhance the regulatory framework, taking into account the outlook that 2-5 reactor replacements will be needed in the 2040s and 11-14 in the 2050s.

(2) Promoting Renewables and Building a Domestic Industrial Base

- Promote renewable energy deployment premised while ensuring coexistence with local communities.
- Build a domestic industrial base for perovskite solar cells, next-generation geothermal and offshore wind power.

(3) Expanding the Supply of Alternative Fuels

- Develop hydrogen and ammonia supply chains, including the use of existing infrastructure.
- Promote biofuels, SAF, synthetic fuels and e-methane.

3. Stabilizing Energy Supply and Demand in the AI Era

(1) Strengthening Electrification, Fuel Switching and Efficiency

- Improve data-center efficiency through efficient semiconductors and AI servers.
- Transform industrial energy use through electrification and efficiency investment.
- Advance initiatives in residential and mobility sectors.

(2) Securing Power Supply Capacity

- Expand supply capacity, including natural gas-fired power; develop the CCS business environment; and double turbine manufacturing capacity and expand grids and large-scale power sources to meet AI-driven demand growth.

- Oil-producing countries: transformation of supply and economic structures through joint stockpiling and alternative routes.