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7th Symposium on Gas and Coal Market Outlooks

**Power sector investments and its impact on  
thermal generation**

October 2025

Mitsubishi Corporation

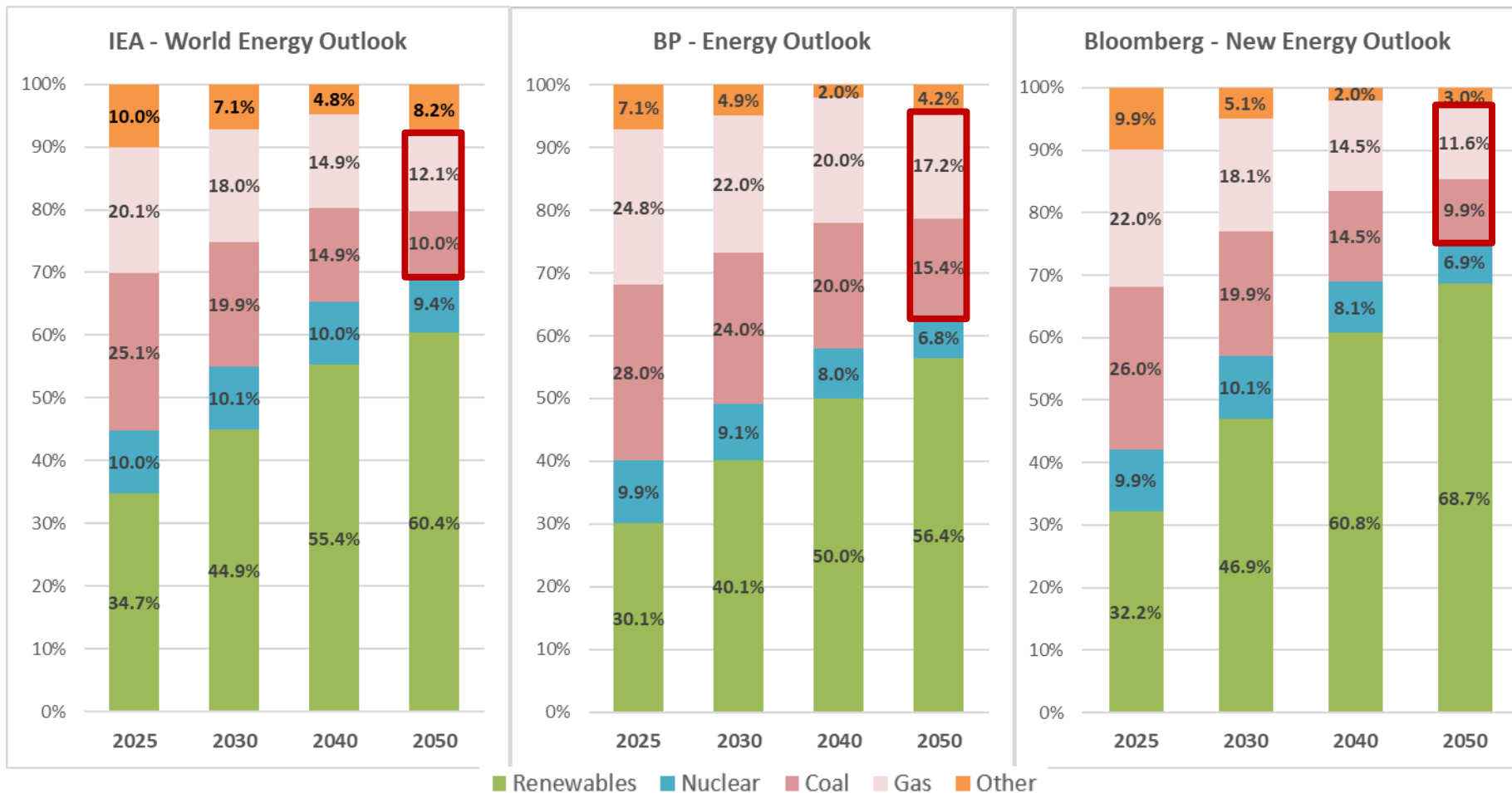
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# Global Long-Term Scenarios for Electricity Generation Mix

Thermal power will remain essential globally, even as renewables expand.



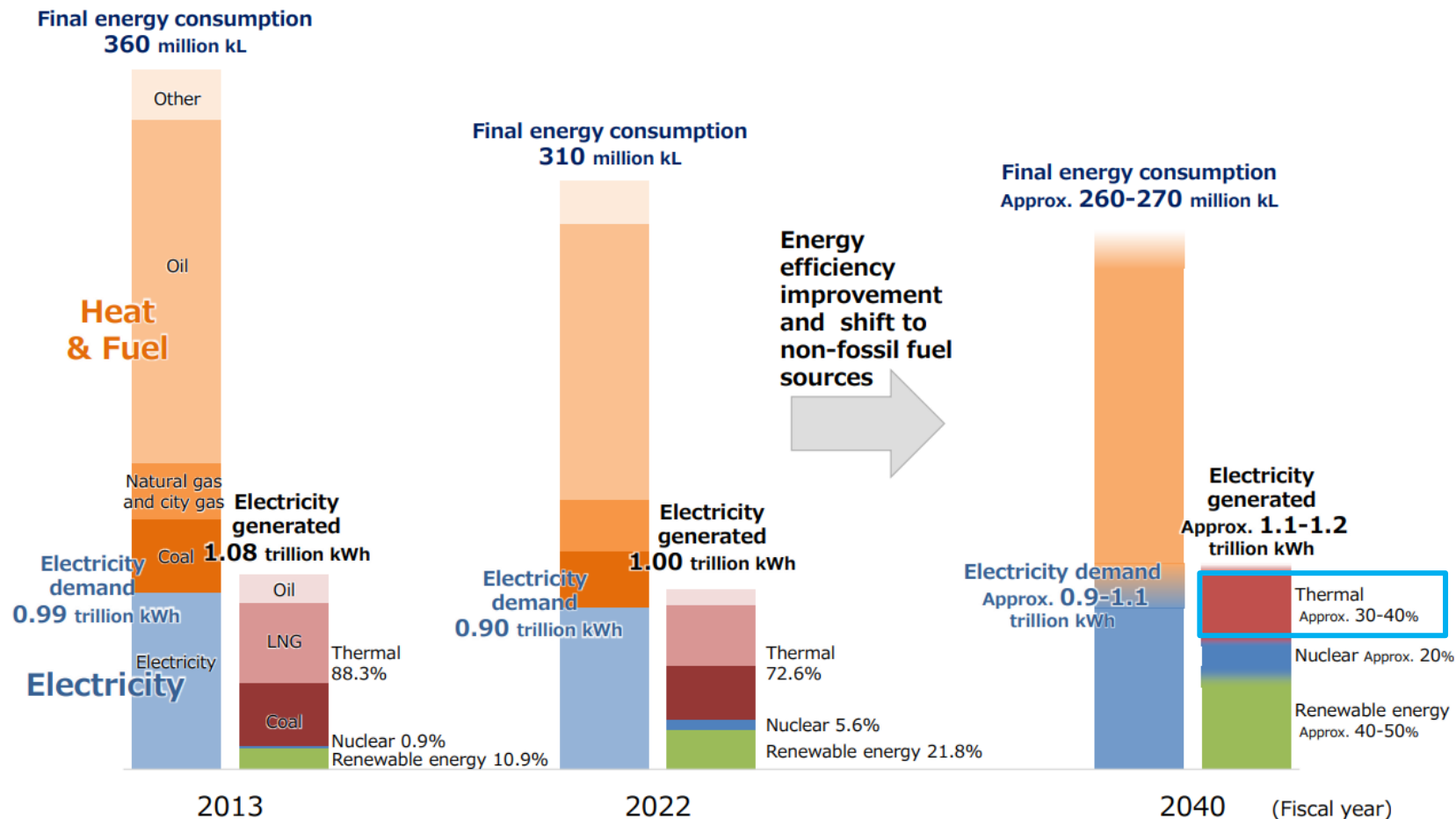
Source : IEA, BP, Bloomberg

Note : The projections shown are based on each organization's baseline scenario: IEA's Stated Policies Scenario (STEPS), BP's Current Trajectory, and BloombergNEF's Economic Transition Scenario.

# Japan's Changing Power Generation Portfolio

Japan's electricity demand is rising, and LNG-fired power is a key transitional source.

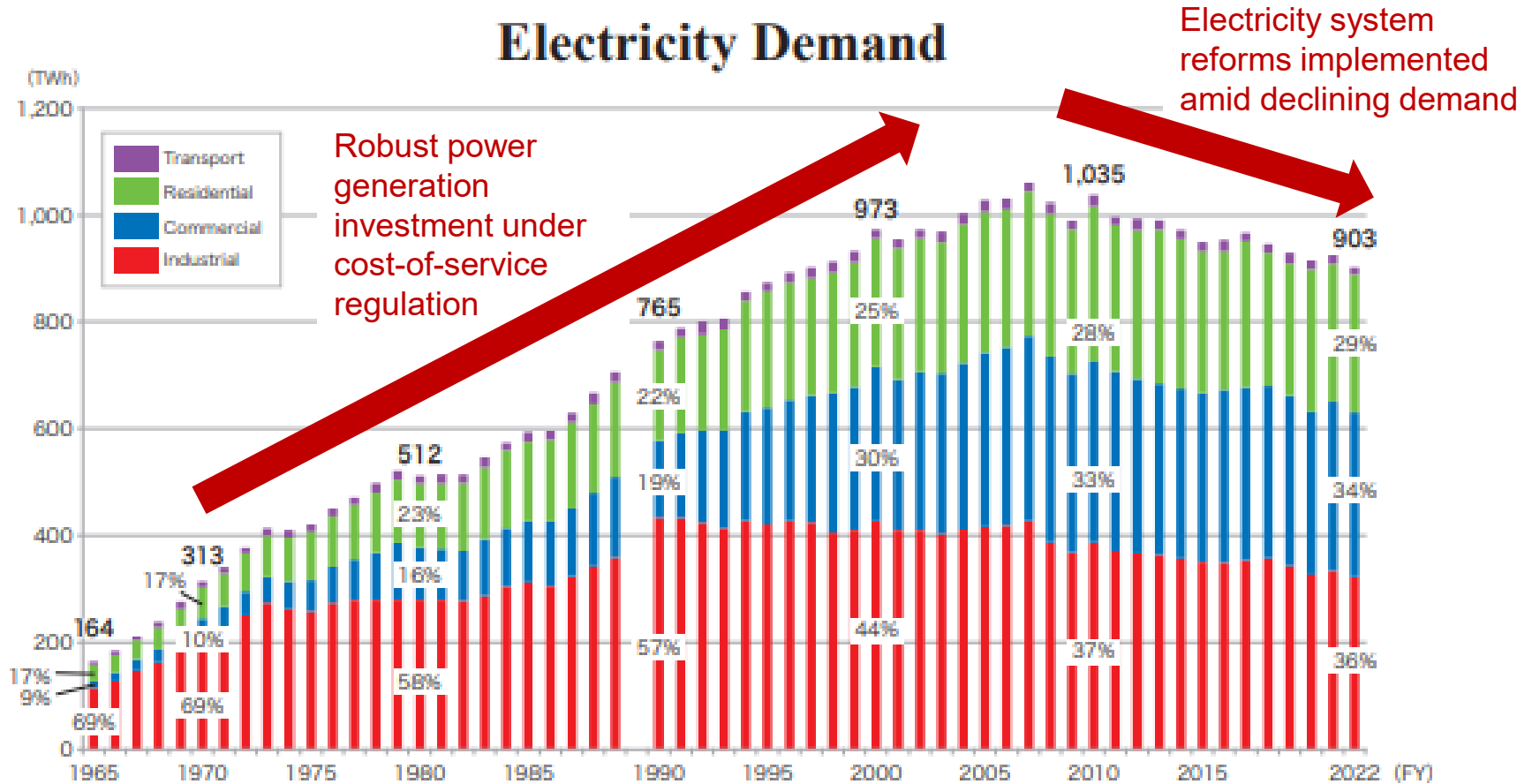
<The 7th Strategic Energy Plan>



Source : Ministry of Economy, Trade and Industry

# Evolution of Power Investment and Regulatory Framework in Japan

Stable investment was enabled by cost-of-service regulation, while electricity system reforms were carried out alongside a decline in electricity demand.



Source : Ministry of Economy, Trade and Industry "FY2023 Annual Report on Energy"

# Electricity System Reform and Shifting Business Environment

Market changes following electricity system reform have led to reduced willingness to invest in the power sector.

## <Strategic Targets of Electricity System Reform>

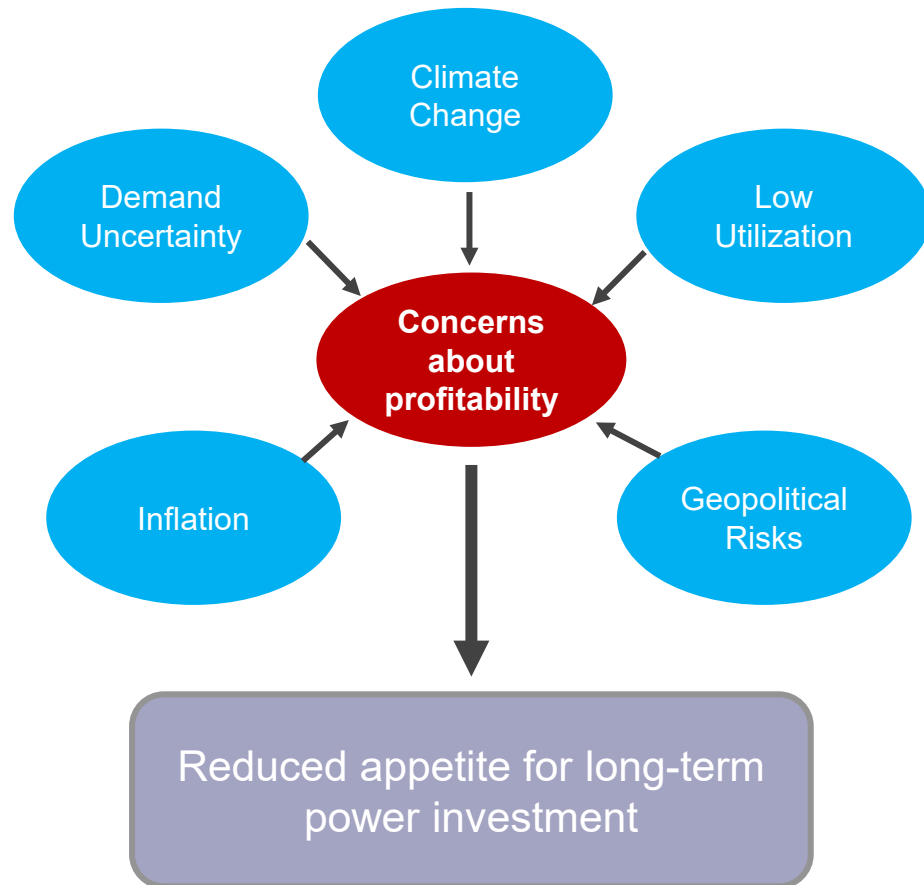
- ① Secure Stable Supply
- ② Keep Electricity Prices Affordable
- ③ Expand customer choices and create new business opportunities for suppliers



## The process of electricity system reform

1995	Deregulation in generation (IPPs have entered the market)
2000	Deregulation in retail sector (only for high-voltage customers)
2015	OCCTO (Transmission Coordination) established
2016	Full retail competition
2020	Legal separation of T&D from power companies

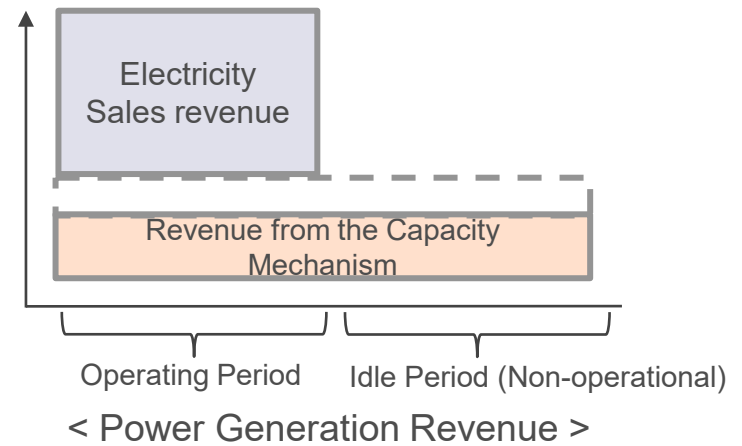
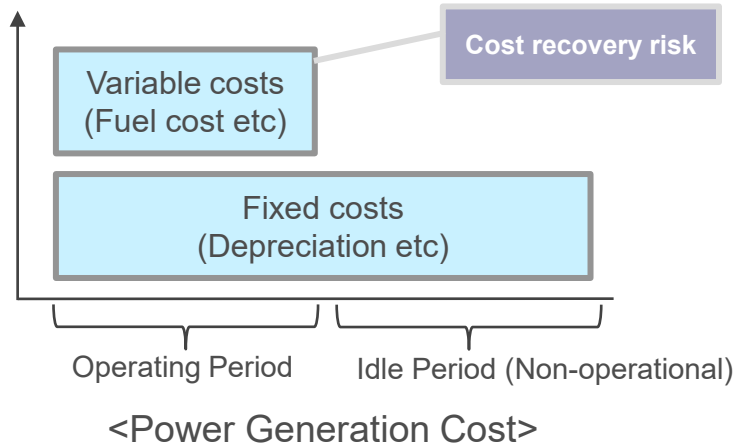
## <Constraints in power investment>



# Securing Future Supply : Investment Support Schemes

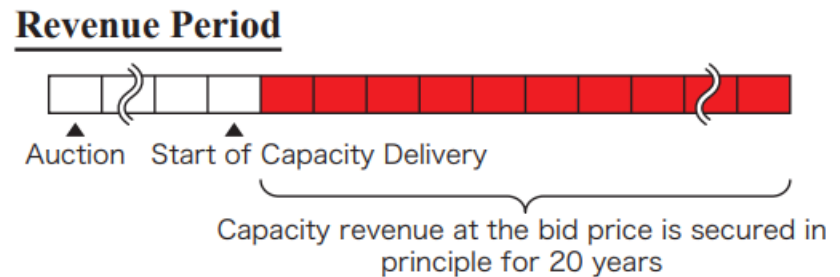
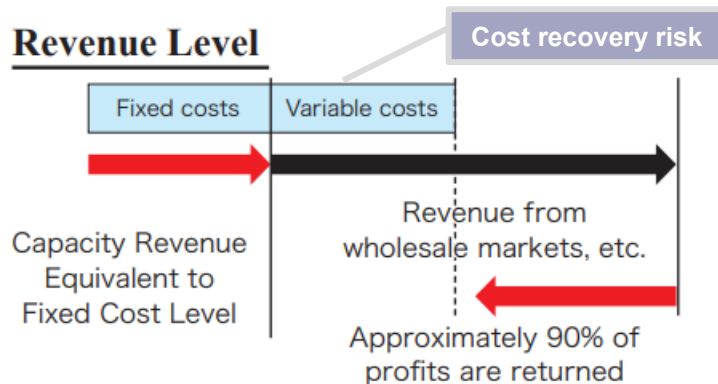
## 1. Capacity Market (kW):

- Ensuring Stable Supply by Rewarding Available Capacity
- Fixed payments for 4 years ahead to generators, regardless of actual output



## 2. Long Term Decarbonization Auction (kW):

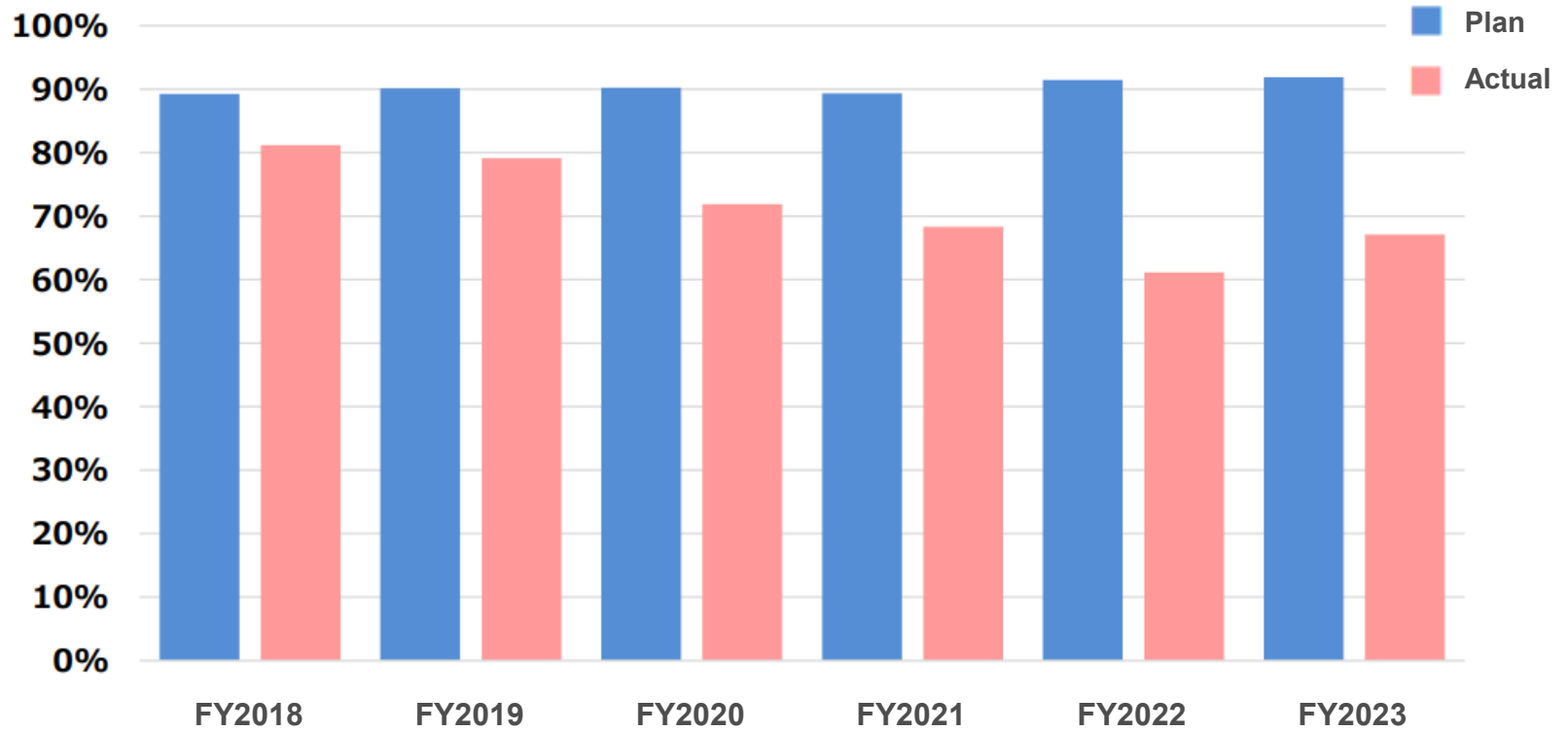
- Promoting Decarbonized Power Investment, Including LNG-fired Plants
- CAPEX is guaranteed for 20 years, but 90% of profits must be returned



# Outlook for Long-Term LNG Contract Volumes

Utilities are relying more on spot LNG purchases, increasing exposure to price volatility.

Long-Term Contract Share

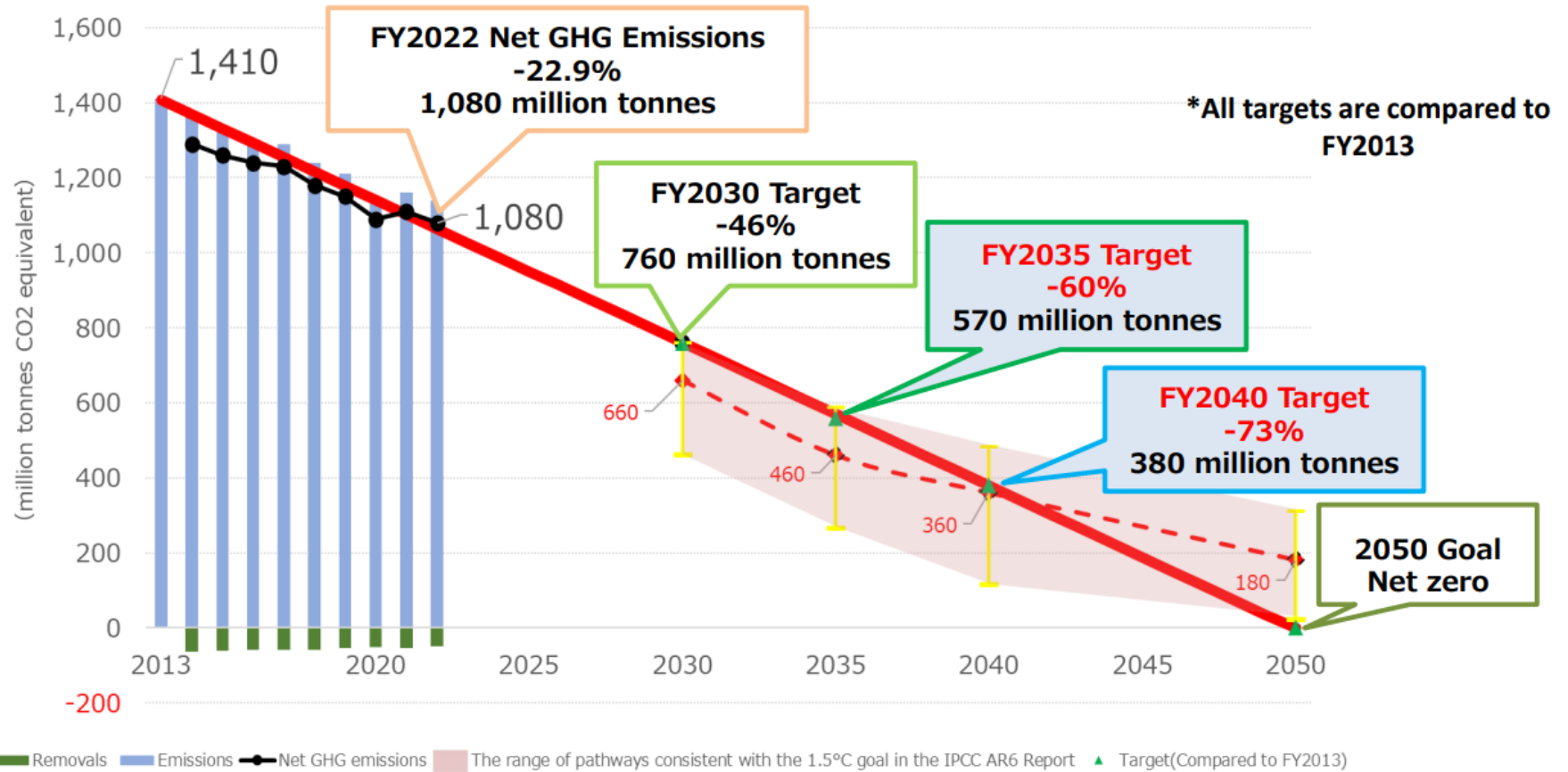


Source : Ministry of Economy, Trade and Industry

# Pathway to Decarbonization Toward Net Zero

Japan's net-zero strategy faces significant challenges and ongoing scrutiny.

## <Japan's GHG Emission Reduction Target>



Source : Ministry of Economy

# Key Strategies for Reliable Thermal Power Supply

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## Examples of Key Initiatives:

1. Ensure human resources and strengthen the supply chain
2. Introduce OPEX compensation mechanisms in the Capacity Market and Long-Term Decarbonized Power Auctions
3. Establishing joint fuel purchasing frameworks
4. Enhance risk financing through collaboration with financial partners
5. Redefine the role of gas-fired power and clarify transitional policy support to achieve both decarbonization and stable supply

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Thank you very much for listening.