

J-POWER “BLUE MISSION 2050”

[See P.27–P.33 for details of each initiative.](#)

Three Action Plans

J-POWER “BLUE MISSION 2050” is a long-term strategy and roadmap for the J-POWER Group. We will advance the transition into a carbon neutral and hydrogen society, while solving social issues by stages concerning each of the three pillars of expansion of CO₂-free power sources, push for zero-emission power sources, and power network stabilization and enhancement.

Expansion of CO₂-free power sources

- Further expansion of renewable energy
- Steady promotion of nuclear power generation

Push for zero-emission power sources

- Conversion from thermal power generation to CO₂-free hydrogen power generation
- Production and supply of CO₂-free hydrogen
- CCS

Power network stabilization and enhancement

- Stabilizing power network
- Power network enhancement

Acceleration and Upcycling

We have set acceleration and upcycling as our priorities for implementation. Regarding acceleration, in addition to developing new renewable energies, we will also accelerate the expansion of renewable energy throughout Japan by providing power balancing capabilities through technologies such as hydrogen power generation, and by enhancing the power network. Upcycling refers to the transformation of existing management resources into high value-added assets through the application of new technologies. Specific initiatives include replacing hydroelectric and wind power facilities and introducing hydrogen, ammonia, and CCS technologies at thermal power plants.

Roadmap and CO₂ Emissions Reduction Targets

As part of the short- and long-term goals toward achieving carbon neutrality by 2050, we have set goals for eliminating CO₂ emissions from the Group's domestic power generation business* by FY2025 and 2030.

This roadmap will be updated, reviewed, and refined as needed based on changes in the assumptions including the Japanese government's GX policy (Strategic Energy Plan, global warming countermeasures, NDC, etc.), power demand-supply situation, power system design, and progress of industry development, etc.

*Emissions from the J-POWER Group's domestic power generation business, which are covered by emissions reduction targets, account for approximately 80% of the Scope 1 emissions.

*Expansion of renewable energies and operation of Ohma Nuclear Power Plant do not directly contribute to the reduction of the Group's CO₂ emissions from thermal power plants, but they do contribute to reducing emissions intensity, as well as CO₂ reductions at power generators and consumers, who are our customers.

CO ₂ reduction target in domestic power generation business (compared to FY2013)		-9.2 million tons	-22.5 million tons -46%	Realization of carbon neutrality Net-zero emissions	
		2025	2030	2040	2050
Expansion of CO ₂ -free power sources	Renewable energy	New development on a global scale of 1 GW (compared to FY2017)		Additional new developments, upcycling of existing facilities and maximum use of existing assets	
	Nuclear	Construction and start of operations at Ohma Nuclear Power Plant			
Push for zero-emission power sources	Domestic coal-fired power	Gradual phase-out of aging power plants	CO ₂ reduction initiatives (Expansion of biomass mixed combustion, introduction of ammonia mixed combustion, etc.)		
	CCS	Development of business environment, design and construction of facilities		Injection and storage	Achievement of CO ₂ -free thermal power generation (Hydrogen, ammonia, IGCC+CCS, biomass mixed combustion+CCS, etc.)
	Hydrogen power generation	Demonstration tests in Japan	Upcycling (adding gasifiers to existing assets)		
	Fuel production (CO ₂ -free hydrogen)	Feasibility study on overseas production	Utilization in other industries		
Power network	Stabilization	Expansion of distributed energy service by improving load tracking performance through upcycling of hydroelectric and thermal power plants (adding gasifiers to existing assets)			
	Reinforcement*	Completion of reinforcement of the New Sakuma Frequency Converter Station, etc.		Contribution to power network enhancement	
Strategic investment		FY2024–2026: ¥300 billion By FY2030: ¥700 billion			

*The power network enhancement is to be implemented by J-POWER Transmission Network Co., Ltd.

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