



J-POWER GROUP INTEGRATED REPORT 2025



J-POWER Group Integrated Report 2025

Supplementary Material
<Environmental>

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Environment

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J-POWER Group Environmental Targets and Results (1/2)

Addressing climate change issues

	Target	Main results in FY2024	Assessment
Accelerating development of CO ₂ -free power sources	Achieving +4.0 billion kWh per year (vs. FY2022) of domestic renewable energy power generation by FY2030	- As of the end of 2024: increase by 0.369 billion kWh/year* (vs. FY2022) Note: Forecast to be an increase of 2.945 billion kWh/year* (vs. FY2022) at the end of FY2030. Development is ongoing. * Estimated annual power generation increase as a result of completion of development, equipment improvement, etc. - Main projects that started operating in or after April 2024 * Numbers in parentheses are equity output Kaminokuni No. 2 Wind Farm (41.532 MW), Nagayama Power Station (Hydroelectric) repowering (0.75 MW), Himeji City Oshio Solar Power Station (1.999 MW), etc. - Construction begun Hibikinada Offshore Wind Farm Project (max. 88 MW), Minami Ehime No. 2 Wind Farm (40.8 MW), Hibikinada Solar Power (approx. 30 MW), etc. Other than these, repowering of existing hydroelectric power stations, construction of wind farms, etc. are also being conducted.	In progress
	Promoting the Ohma Nuclear Power Project prioritizing safety	- We reviewed the Ohma Nuclear Power Project regarding its compliance with the new regulatory standards. - We also implemented initiatives for fostering understanding and gaining trust of local communities.	In progress
Reducing greenhouse gas (GHG) emissions	Achieving ▲9.2 million t of CO ₂ emissions from domestic power generation business by FY2025 (vs. FY2013 results)	- CO₂ emissions reduction in FY2024 was ▲12.93 million t (emissions: 35.84 million t), below the FY2025 target * Compared to FY2013 results We will continue to strive for achieving the FY2025 target. - We are considering expanding biomass co-firing (Takehara Thermal New Unit No. 1) and reducing operation of aged coal-fired thermal plants. - At the end of FY2024, we decommissioned the existing Matsushima Unit 1 and mothballed Unit 2 in preparation for the GENESIS Matsushima Plan.	In progress
	Achieving ▲22.5 million t or ▲46% (vs. FY2013 results) of CO ₂ emissions from domestic power generation business by 2030	- We are considering expanding biomass co-firing, introducing ammonia co-firing, realizing domestic CCS, and reducing operation and decommissioning of aged coal-fired thermal plants. - For the GENESIS Matsushima Plan, which is the first step to CO₂-free hydrogen power generation, environmental assessment procedures have been in progress since September 2021 to add a coal gasification facility to the existing power plant.	In progress
	Achieving the Energy Conservation Act thermal power generation benchmark by FY2030	Toward achieving the FY2030 benchmark, we are considering retaining high-efficiency operation of existing thermal power plants, introducing and expanding use of biomass, and practically applying ammonia co-firing. FY2024 results Electricity supply Index A: 0.938 Index B: 38.5% Coal-fired thermal electricity supply 39.2%	In progress

J-POWER Group Environmental Targets and Results (2/2)

Addressing local environmental issues

 Poorly achieved
  Mostly achieved
  Target achieved

	Target	Main results in FY2024	Assessment
Creation of a recycling-oriented society	Effective use rate of industrial waste about 97%	93.1% We worked to reduce industrial waste generated from power station maintenance and operation, and to effectively use coal ash, which makes up the majority of that waste.	
	Promoting the control of plastic waste discharge and its recycling	We monitored the status of plastic waste discharge and recycling and worked to reduce discharge and promote recycling by enforcing sorting rules and reviewing processing.	
Biodiversity conservation and restoration	Consideration for biodiversity conservation and restoration in business activities	To preserve endangered and other animals and plants and their habitats, we undertook biodiversity-conscious environmental activities including designating endangered species habitats as protected areas and sharing information on endangered plants and animals near construction sites with relevant personnel for their protection.	
Water environment conservation	Consideration for river and marine environment conservation in business activities	In operating power generation facilities involving rivers, we steadily took river environment conservation action such as sediment reduction measures and long-term turbid water mitigation measures, according to the local situation. In operating power generation facilities located next to a sea area, we properly controlled discharge of water into the sea area in compliance with environmental agreements, etc.	

Transparency and reliability initiatives

	Target	Main results in FY2024	Assessment
Improving environmental management level	Continuous improvement of EMS	We ensured repeating PDCA cycles to improve the environment management level.	
Ensuring compliance with environmental laws, regulations, agreements, etc.	Serious violation of environmental laws, regulations, agreements, etc.: zero	We ensured compliance with environmental laws and regulations, and there were no serious violations. (Fine: 0 cases, Sanction: 0 cases) Going forward, we will continue to confirm that the standards of relevant laws and regulations on air and water quality and environmental agreements are met and ensure compliance with laws and regulations.	
Promoting environmental communication activities	Promoting environmental communication activities in local communities and the company	We endeavored to build a relationship of mutual trust for coexistence with local communities through environmental activities such as tree planting and community cleaning. We also enhanced environmental communication in the company through environmental information exchange sessions and environmental education.	

J-POWER Group Environmental Action Guidelines (1/2)

Addressing climate change issues

Accelerating development of CO₂-free power sources

- Maintain stable operation of existing hydroelectric, geothermal, wind, biomass, and solar power generation.
- Improve efficiency by upgrading facilities at existing hydroelectric power plants and promote NEXUS Sakuma Project.
- Promote new development of hydroelectric, geothermal, wind, and solar power generation.
- Respond appropriately to the Nuclear Regulation Authority's new regulatory standards conformity assessment.
- Promote voluntary and continuous efforts to improve safety and build a nuclear power plant which is trusted by the community.

Reducing greenhouse gas (GHG) emissions

- Promote the Osaki CoolGen Project to develop high-efficiency IGCC power generation technology.
- Promote efforts to develop and commercialize CO₂ capture, utilization, and storage (CCUS) technologies.
- Maintain high-efficiency operation at existing thermal power plants.
- Expand introduction of biomass in existing thermal power plants, etc., and study practical application of ammonia co-firing.
- Improve existing thermal power plant facilities and promote the GENESIS project.
- Promote initiatives aimed at utilizing carbon credits and emissions trading.
- Calculate and report greenhouse gas emissions accurately by source.
- Reduce greenhouse gas emissions other than CO₂ such as SF₆, HFCs, and N₂O.

Promoting energy saving

- Improve energy efficiency at offices by reducing fuel and electricity consumption.
- Convert to non-fossil energy at offices.
- Save energy and convert to non-fossil energy within the transportation division, including shippers.

Addressing local environmental issues

Creation of a recycling-oriented society

- Promote the 3Rs of waste and appropriate disposal.
- Thoroughly separate plastic waste and monitor its amount discharged and recycled, etc. and promote 3Rs.
- Maintain appropriately the final disposal site and implement decommissioning procedures.
- Expand use of reused and recycled products, etc.

Biodiversity conservation and restoration

- Conserve and sustainably use the natural environment at planning, design, construction, and operation stage.
- Conserve rare animals, plants and their habitats.
- Through biodiversity education and conservation activities, raise awareness for its conservation and restoration.

Forest conservation

- Conserve company-owned forests.
- Promote use of unutilized wood residues in forests.

Water environment conservation

- Appropriately use water resources and conserve water quality.
- Promote measures to reduce sedimentation sand and mitigate long-term turbid water in rivers.
- Appropriately manage waste water based on environmental agreements, etc.
- Strengthen measures to prevent oil leakage from equipment, etc.

J-POWER Group Environmental Action Guidelines (2/2)

Addressing local environmental issues (continued)

Reducing air pollutant emissions

- Appropriately manage combustion and environmental facilities to control emissions of NO_x, SO_x, and dust etc.

Suppressing noise, vibration, and odors

- Appropriately manage equipment that generates noise, vibration, and odors.

Managing chemicals

- Ensure that emissions and transfers of chemicals are monitored, managed, and disclosed.
- Manage appropriately and dispose of PCB waste and PCB-used products in accordance with J-POWER policies.
- Manage appropriately and systematically remove asbestos.

Environmental consideration in business activities

- Assess environmental impacts in business planning and consider environmental conservation in business operations.

Transparency and reliability initiatives

Improving environmental management level

- Implement continuous improvement and optimization of EMS.
- Implement education for understanding environmental challenges.
- Request cooperation from suppliers in environmental considerations.
- Prevent environmental problems and when it occurs, communicate thoroughly and respond appropriately.

Ensuring compliance with environmental laws, regulations, agreements, etc.

- Ensure identification, dissemination, and application of laws, regulations, agreements, etc.
- Implement and actively participate in education on environmental laws and regulations, etc.
- Utilize waste disposal guidelines, etc. and expand the use of e-manifests.

Promoting environmental communication activities

- Conduct environmental reporting in consideration of external guidelines and social demands.
- Undertake third-party audits of environmental significant data.
- Actively respond to ESG ratings and surveys.
- Conduct communication activities with various stakeholders and respond appropriately.
- Make social contributions through public relations or local environmental preservation activities, etc.

Input-Output (domestic operations) [FY2024]

INPUT

Use of fuel

Coal [10 kt] (dried; 28 GJ/t equivalent) including thermal power fuel	1,348 1,348
Natural gas [million Nm ³]	0
Heavy oil [10 ML] including thermal power fuel	3.2 3.1
Light oil [10 ML] including thermal power fuel	3.2 3.0
Biomass fuel [10 kt] including thermal power fuel	12.6 12.6
Other fuel [10 ML] (gasoline, kerosene, LPG, etc.) (gasoline equivalent) including thermal power fuel	0.5 0

Use of water

River water [10,000 m ³]	5,070,000
Sea water [10,000 m ³]	833,000
Industrial water [10,000 m ³]	839
Tap water [10,000 m ³]	26
Others [10,000 m ³] (e.g. underground water)	1.1

Use of electricity

Purchased electricity [0.1 TWh]	1.71
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Use of chemicals

Limestone (CaCO ₃) [10 kt]	11.9
Ammonia (NH ₃) [10 kt]	1.2

Use of paper

Copier papers [10,000 sheets] (A4-size equivalent)	2,982
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Discharge to waters, etc.

Highly treated wastewater [10,000 m ³]	332
COD in wastewater [t]	10

Chemical releases and transfer

Toluene [t]	12.4
Xylene [t]	2.7
Asbestos [t] *disposed as industrial waste	2.2
Styrene [t]	1.6
Ethyl benzene [t]	2.5

emission/waste

Emission to the atmosphere, etc.

CO ₂ : fuel burning [10 kt-CO ₂]	3,584
CO ₂ : electricity usage [10 kt-CO ₂]	7.5
N ₂ O [10 kt-CO ₂] Dinitrogen monoxide	8.6
SF ₆ [10 kt-CO ₂] Sulfur hexafluoride	1.1
NOx [kt] Nitrogen oxides	20.4
SOx [kt] Sulfur oxides	8.9
Dust [kt]	0.6

Discharge of waste, etc.

Industrial waste [10 kt]	10.8
including coal ash [10 kt]	9.9
including plastics [10 kt]	0.12
Specially-controlled industrial waste [10 kt]	0.12
General waste (old paper) [t]	48
General waste (driftwood from dam) [1,000 m ³]	2.1

OUTPUT

We will meet people's needs for energy without fail.

Electricity supply by power generation business

Generated electricity [0.1 TWh]	548 (119)
Sold electricity [0.1 TWh]	500 (100)

() indicates the amount of electricity generated from renewable energy (hydropower, wind power, geothermal energy, solar power) and the amount of electricity sold (included in the total).



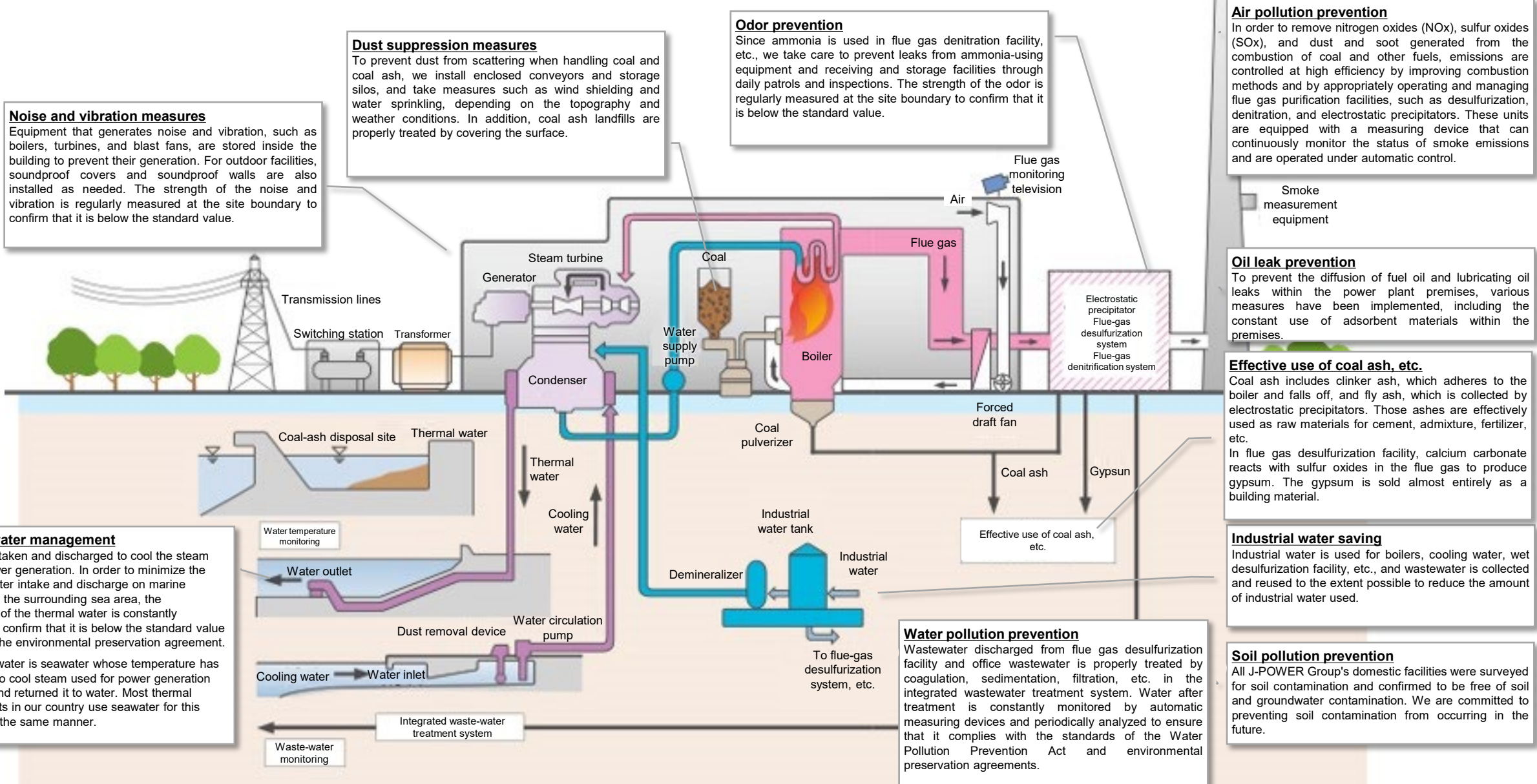
Effective use

Coal ash [10 kt]	119	92.4%
Gypsum [10 kt]	22	100%
Sludge [10 kt] (excluding gypsum)	0.8	77.3%
Other industrial waste [10 kt]	1.6	74.8%
Paper waste [t]	121	71.7%
Driftwood from dam [1,000 m ³]	14.6	87.3%

Percentages indicate each effective utilization rate.

* The scope of aggregation includes J-POWER and its domestic consolidated subsidiaries in the electric power business and electric power-related and other related businesses. The consolidated subsidiaries' portion is the one equivalent to J-POWER's investment ratio.

Environmental Consideration at Power Plants



Creation of a recycling-oriented society

* Integrated report reference page: p. 65

We are striving to make effective use of waste with the environmental target of effective utilization rate of industrial waste of approximately 97%.

The amount of industrial waste discharged from the J-POWER Group in FY2024 was 1.56 million t. 97% of this industrial waste was coal ash and gypsum discharged from thermal power stations. These materials were recycled as cement ingredients or land reform materials to reduce waste. The effective use rate of industrial waste in FY2024 dropped to 93.1% due to a reduced recycling rate of coal ash for domestic cement application. We will continue to work on effective use of industrial waste.

Discharge and recycling of industrial waste from plastic products

Since waste plastics is generated as a result of equipment renewal and repair work, we promote thorough separation of waste and the 3Rs.

In FY2024, J-POWER Generation Service Co., Ltd. and J-POWER HYTEC Co., Ltd. were classified as waste generators who generate large amounts of plastics (250 tons/year or more) under the Plastic Resource Circulation Act. J-POWER, the installer of the power plants, and the entire group have set an environmental goal of reducing emissions and promoting recycling of waste plastics, and will continue to work on thorough understanding of waste plastic sorting, emission volume, recycling, etc., and promotion of the 3Rs (Environmental Action Guidelines).

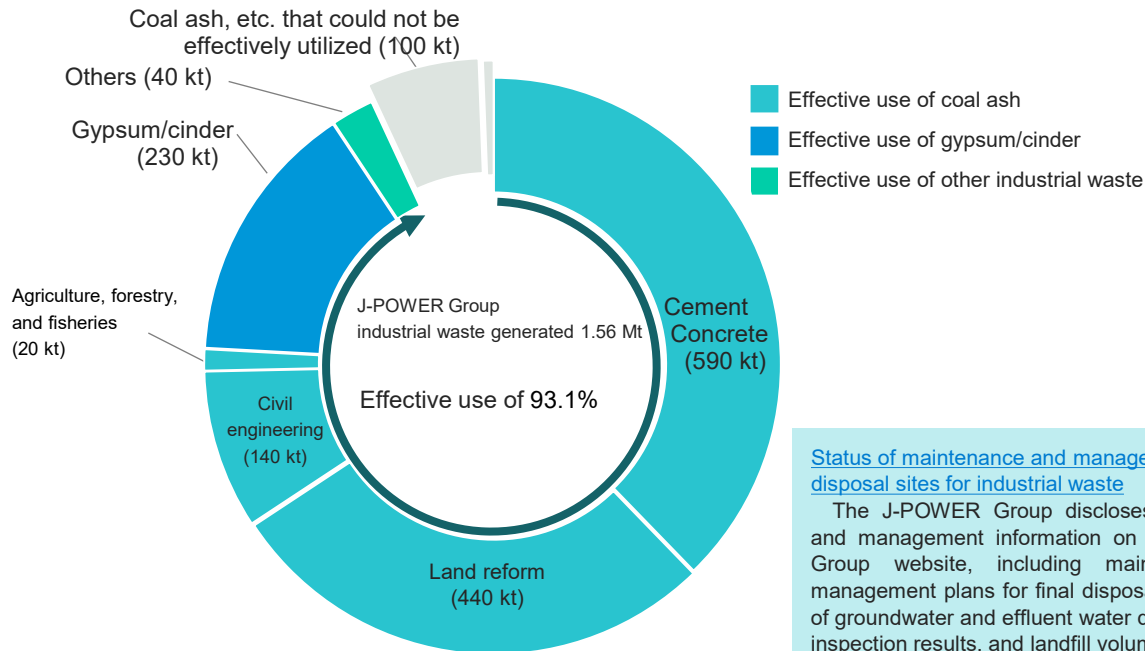
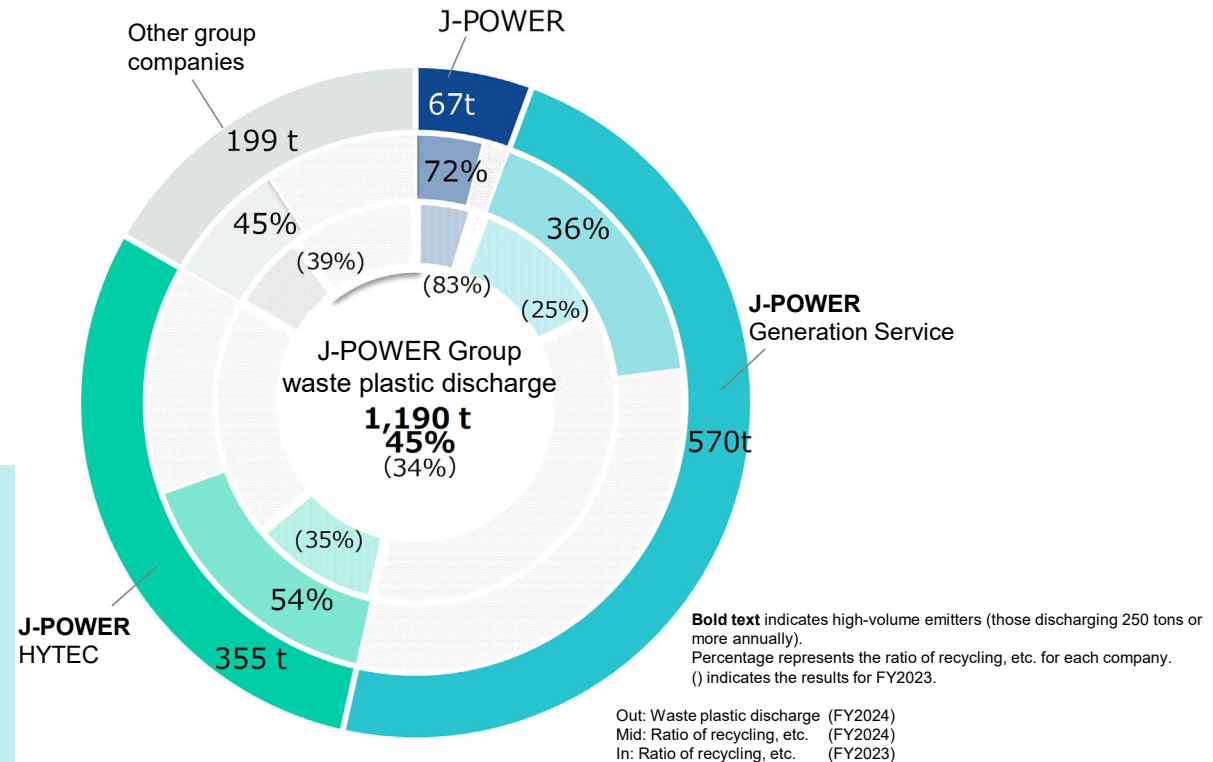


Fig: Discharge and effective use of industrial waste

Status of maintenance and management of final disposal sites for industrial waste

The J-POWER Group discloses maintenance and management information on the J-POWER Group website, including maintenance and management plans for final disposal sites, results of groundwater and effluent water quality analysis, inspection results, and landfill volumes.

<https://www.jpowers.co.jp/bs/karyoku/maintenance.html>



Managing chemicals

We comply with all applicable laws and regulations regarding the use, storage, management, and disposal of chemical substances and PCB waste (including equipment containing low concentrations of PCBs) contained in products or equipment used as well as products containing asbestos.

Management of releases and transfers of specified chemical substances

Some products used for painting on equipment and buildings and for treating water supply in thermal power plants contain chemical substances specified in law. Therefore, we are working to reduce the amount of waste handled by monitoring the amount of releases and transfers while complying with established procedures and handling it safely.

Table: Releases and transfers of chemical under the PRTR law (FY2024) Unit: t

Material name	Major usage	Volume handled	Emission to environment	Amount moved in waste
Asbestos	Heat insulating material	2.2	0	2.2
Ethyl benzene	Paint for equipment	2.5	2.5	0
Xylene	Paint for equipment	2.7	2.7	0
Styrene	Paint for equipment	1.6	1.6	0
Toluene	Fuel for power generation	12.4	12.4	0
Hydrazine	Water supply treatment	1.4	0	0
Boron compound	Fertilizer additives	11.5	0	0

Note: The data was compiled for business establishments that handle 1 ton or more of Class I Specified Chemical Substances or 0.5 tons or more of certain Class I Specified Chemical Substances per year.

Asbestos

We continue to investigate and take measures against asbestos. Current usage is shown in the table below. We will continue to take appropriate measures such as systematically removing asbestos and replacing it with non-asbestos products in compliance with relevant laws and regulations.

Table: Major asbestos use in buildings and facilities (as of March 31, 2025)

Target	Place of use	Current (use status)
Spraying containing asbestos	Soundproofing, heat insulation, and fireproofing materials for equipment rooms, etc.	Measures have been taken for sprayed materials confirmed to contain asbestos.
Building materials	Fireproof boards for buildings; Used for floor material, etc.	Asbestos is believed to be contained in building materials used before August 2006. No asbestos-containing products have been used since then.
Soundproofing material	Soundproofing material for transformer (Substation facilities)	Measures have been taken for soundproofing materials confirmed to contain asbestos.
Asbestos cement pipes	Pipeline materials for underground lines (Power transmission facilities)	Length: approx. 0.6 km
Heat insulating material	Power generation facilities (Thermal power facilities)	Remaining asbestos-containing products: approx. 20,000 m3 (approx. 20% of total)
Sealing materials and joints		Remaining asbestos-containing products: approx. 31,000 pcs (approx. half of total)
Thickener	Electric lines for overhead transmission lines (Power transmission facilities)	Wire corrosion inhibitor, Length: approx. 76 km
	Power generation facilities (Hydro facilities)	Asphalt surface water-barrier wall: 3 facilities (Otsumata Dam: Fukushima Prefecture, Numappara Dam: Tochigi Prefecture, Honbetsu Power Station's water pipeline culvert section: Hokkaido)
Cushioning material	Suspension insulators for power transmission equipment, etc.	Number: About 490,000 pcs (Asbestos-containing products are used as cushioning materials inside insulators but not used for the porcelain portion of the insulator surface.)

Environmental impact assessments of business activities

* Integrated report reference page: p. 66

Prior to the construction of new or additional power plants, we conduct environmental assessments in accordance with relevant laws and regulations, and give appropriate consideration to environmental impact at the planning stage, taking into account the opinions of local residents and other stakeholders.
(18 projects as of July 2025)

Business activities	Progress	Area
New Aso Nishihara Wind Farm Project	Draft EIS procedure completed	Nishihara-mura, Aso-gun; Ozu-machi, Kikuchi-gun; Kumamoto, Japan
New Koriyama Nunobiki Kogen Wind Power Generation Project	Draft EIS procedure in progress	Koriyama City, Fukushima, Japan
Hisatsu Wind Farm Project	Draft EIS procedure completed	Minamata City, Kumamoto; Izumi City, Isa City, Kagoshima; Japan
Youra Peninsula Wind Power Project	Draft EIS procedure completed	Tsukumi City, Saiki City, Oita, Japan
North Kagoshima (West and East Districts) Wind Power Project	Draft EIS procedure completed	Akune City; Izumi City; Satumasendai City; Satsuma-cho, Satsuma-gun; Kagoshima, Japan
New Setana Waterfront Wind Power Project	Scoping Documents procedure completed	Setana-cho, Kudo-gun, Hokkaido, Japan
Setana Futoro Wind Farm Project	Scoping Documents procedure completed	Setana-cho, Kudo-gun, Hokkaido, Japan
Naka-Noto Wind Farm Project	Scoping Documents procedure completed	Nanao City; Shikamachi, Hakui-gun; Nakanoto-machi, Kashima-gun; Ishikawa, Japan
Fukui Ohno, Ikeda Farm Project	Scoping Documents procedure completed	Ohno City; Ikeda-cho, Imadate-gun; Fukui, Japan

Business activities	Progress	Area
New Tahara Waterfront Wind Power Project	Scoping Documents procedure completed	Tahara City, Aichi, Japan
Watarai, Minami-Ise Wind Power Project	Scoping Documents procedure completed	Watarai-cho, Watarai-gun; Minami-Ise-cho; Mie, Japan
Hiroshima West Wind Farm Project	Scoping Documents procedure completed	Hiroshima City; Hatsukaichi City; Aki-Ota-cho, Yamagata-gun; Hiroshima, Japan
Seiyo Yusuvara Wind Power Project	Scoping Documents procedure completed	Seiyo City; Kihoku-cho, Kitauwa-gun; Ehime, Japan; Yusuvara-cho, Takaoka-gun, Kochi, Japan
New Aso Oguni Wind Farm Project	Scoping Documents procedure completed	Oguni-machi, Aso-gun; Minami-oguni-machi, Aso-gun; Kumamoto, Japan; Kokonoe-machi, Kusu-gun, Oita, Japan
GENESIS Matsushima Project	Scoping Documents procedure completed	Saikai City, Nagasaki, Japan
Kichu Wind Farm Project	Document on Primary EIC procedure completed	Aridagawa-cho, Arida-gun; Hidakagawa-cho, Hidaka-gun; Hironaga-cho, Arida-gun; Wakayama, Japan
West Chugoku Wind Farm Project	Document on Primary EIC procedure completed	Shunan City, Iwakuni City, Yamaguchi; Yoshika-cho, Shimane; Japan
Takahinatayama Area Geothermal Power Generation Project	Document on Primary EIC procedure completed	Osaki City, Miyagi, Japan

Biodiversity conservation and restoration, water environment conservation

The Company endorses the Keidanren Declaration for Biodiversity and Guideline. In addition, we have adapted the spirit of the Electricity Utility Industry's Action Guidelines for Biodiversity of The Federation of Electric Power Companies of Japan. Under these guidelines, we have proclaimed the J-POWER Group Environmental Targets "Biodiversity conservation and restoration" and "Water environment conservation." We are working toward achieving a nature-positive state through initiatives such as implementing education and field activities to raise awareness for biodiversity conservation and restoration, conserving endangered species habitats, and properly managing wastewater.

Ecosystem protection at hydroelectric power station site

At the Tagokura Power Station (in Fukushima Prefecture), *Sparganium erectum* and *Cynops pyrrhogaster* (Japanese fire-bellied newt), both on the Fukushima Prefecture Red List, were confirmed in the soil storage development area to be created using regulating pond deposits. As part of our biodiversity conservation efforts, the former was replanted nearby, and slopes were installed in drainage gutters to preserve the latter. Post-measure monitoring confirmed the existence of both the replanted *Sparganium erectum* and the newts using the slopes.



Replanted *Sparganium erectum*



Japanese fire-bellied newts

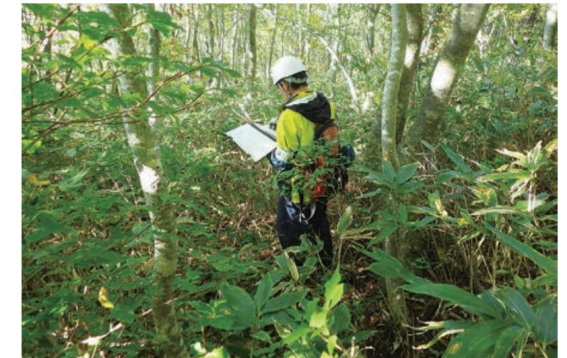
In addition, we contribute to forest conservation and CO₂ emissions reduction by preserving company-owned forests around hydroelectric power plants and processing forest residues into biomass fuel (to be burned at thermal power plants).

Biodiversity risk assessment and responses

Our environmental assessment investigates the environmental condition prior to starting a project and estimates and evaluates the impact of the project on the environment, according to the characteristics of the region and the project. Based on the results, appropriate environmental conservation measures are implemented to minimize the impact on the surrounding environment. Also after starting operating, monitoring is conducted under the environmental agreements and the outcome is published.



Animal survey (insect survey)



Plant survey (flora survey)

Research and development of measures against water-related risks

J-POWER conducts research and development (R&D) on water-related risks, such as reservoir environment conservation technologies and improving resilience against natural disasters (remote monitoring using satellite image data). Through these R&D, we will develop comprehensive activities for conserving the water environment and reducing risks to it. (For the Company's total R&D expenses including those involving measures against water-related risks, see the integrated report p. 13.)

Improving environmental management level

We have introduced an environmental management system (EMS) at each business site of the J-POWER Group, and are working to continuously improve the environmental management level by formulating environmental action plans, periodically monitoring and evaluating the status of our efforts, and reviewing our measures.

In addition, as a party to businesses with various environmental burdens, we provide environmental education programs tailored to each individual's position and role, ensuring that every employee understands environmental management as a member of the J-POWER Group and works with a sense of responsibility.

* Integrated report reference page: p. 73

Environmental laws and regulations

Training to improve waste management skills

Beginner Level Number of participants: 160

Improving competency for practical application by grasping the general flow of waste management operations

- ✓ Acquiring and reinforcing basic knowledge of waste management operations through lectures and exercises

Training to improve waste management skills

Standard Level Number of participants: 100

Acquisition of necessary knowledge for practical operations

- ✓ Explaining key points of waste management laws (including explanations of legal revisions)
- ✓ Learning how to complete consignment contracts and manifest forms

Waste disposal risk assessment Number of sites: 3
Elevating risk management for waste management operations across the entire group

- ✓ Verifying operational status of waste management at each business site
- ✓ Identifying issues and areas for improvement through discussions with relevant personnel

Training on environmental laws and regulations
Number of participants: 167

Acquiring basic knowledge of environmental laws related to various business activities and understanding the latest trends

- ✓ Updating educational materials on environmental laws in line with legal revisions and posting them on the company intranet
- ✓ Providing training support for departments with high demand

EMS training

EMS internal auditor training Number of participants: 57

Training of internal environmental auditors in EMS

- Acquisition of necessary knowledge for conducting internal environmental audits
- Enhancement of employees' competencies and capabilities through fundamental understanding of EMS

Training for EMS managers and secretariat staff Number of participants: 26

Appropriate maintenance and improvement of EMS

- ✓ Approach focused on explaining standards and conducting exercises
- ✓ Providing extensive learning opportunities for EMS management personnel, secretariat staff, and other practitioners

Environment e-learning Number of participants: 6,050

Acquisition of the latest environmental knowledge and enhancement of environmental awareness

- ✓ Attended by J-POWER Group company executives and employees
- ✓ In FY2024, the theme was environmental problems

Environmental information exchange Number of participants: 197

Improving environmental awareness and environmental management levels

- ✓ Information exchange between the environmental department at the head office and the environmental managers and staff at each business site
- ✓ Example environmental management cases and opinion exchanges, etc.

Environmental lecture Number of participants: 325

Holding lectures by experts on environmental issues and social trends

- ✓ Attended by J-POWER Group board members and environment management directors
- ✓ In FY2024, the themes were nature restoration and carbon neutrality

Ensuring compliance with environmental laws, regulations, agreements, etc.

In order to reduce the impact of our business activities on the surrounding environment, we strive to improve our facilities and operations, as well as to properly inform and apply laws, regulations, agreements, etc. applicable to our business activities.

Responding to environmental problems

Based on the environmental management system, each business site is prepared to prevent environmental problems before they occur and to prevent the spread of damage in the event that environmental problems do occur. We also have a communication system in place in the event of environmental problems, and are prepared to promptly report and communicate with local relevant organizations and departments, including the Crisis Management Response Team at J-POWER’s head office. The Crisis Management Response Team will promptly share information with top management and, if necessary, disclose the situation to the media. We are also taking measures across the department to prevent recurrence not only at the subject location but also at similar locations. There was one environmental incident publicly reported through the mass media in FY2024.

The number of publicly reported environmental incidents occurred in recent years
FY2022: 1 FY2023: 0 **FY2024: 1**

Location	Situation and countermeasures
Okayama Transmission System Office (Kurashiki City, Okayama, Japan)	On November 9, 2024, a ground fault incident occurred for the power transmission cable of Honshu-Shikoku interconnection line No. 1. As a result, approx. 6,000 L of insulating oil leaked into the underground tunnel. Of the total leaked oil, approx. 2,500 L was recovered. The remaining approx. 3,500 L is assumed to have been released into the ocean, permeated into the soil , or remained in the tunnel. The exact amounts are unknown. The insulating oil is colorless and transparent, and does not contain harmful substances. There is no risk of vaporization or ignition. Currently, we are monitoring the discharge ports to prevent additional release into the ocean, and proceeding with an investigation for confirming the range of soil contamination . We will continue monitoring and recovery to minimize its environmental impact.

Promoting environmental communication activities

* Integrated report reference page: p. 66

In addition to reporting and disclosing environmental information to society, we participate in cleanup activities and social events in each region, placing importance on face-to-face interactions.

We also hold environmental information exchange meetings within the group companies to share information on environmental management.

Table: Environmental communication with internal and external parties (excerpts)

Target	Contents
Information disclosure to society	- News releases * As needed on the J-POWER website - Issuing integrated reports * Around September each year - Responses to questionnaires (CDP, domestic press, etc.)
Report to the government, etc.	- Periodic reporting on Act on Rationalizing Energy Use and Act on Promotion of Global Warming Countermeasures * Consent to voluntary disclosure - Notification based on PRTR system - Notification based on the Act on Waste Management and Public Cleansing, etc.
Interaction with local community	- Cleaning around offices - Participation in ecosystem protection activities (release of young fish, etc.) - Participation in and support for community exchange events (nature observation, learning events, festival preparation, etc.) - Holding open-house events of offices - Planting, seeding, and flowerbed maintenance on the office premises, etc.
Information sharing within the group companies	- Timely sharing of environmental information (e.g., information on legal revisions, trouble cases, etc.) - Environmental information exchange - Cleaning and beautification activities at business sites, etc.

List of Environmental Data (1/3)

Power generation and energy use

		FY2022	FY2023	FY2024
Generated electricity [0.1 TWh]	Total	710	737	684
	Domestic	596	526	548
	Overseas	114	211	136
Coal [10 kt] (dried; 28 GJ/t equivalent)	Total	1,514	1,276	1,348
	Domestic	1,514	1,276	1,348
	Overseas	0	0	0
Natural gas [million Nm3]	Total	1,857	3,571	1,810
	Domestic	0	0	0
	Overseas	1,857	3,571	1,810
Heavy oil [10 ML]	Total	2.5	2.4	3.2
	Domestic	2.5	2.4	3.2
	Overseas	0	0	0
Light oil [10 ML]	Total	33.2	19.7	3.2
	Domestic	2.4	2.9	3.2
	Overseas	30.8	16.8	0
Other fuel [10 ML] (gasoline equivalent)	Domestic	0.65	1.00	0.49
	Overseas	—	—	—
Biomass fuel [10 kt]	Total	12.2	12.9	12.6
	Domestic	12.2	12.9	12.6
	Overseas	0	0	0
Purchased electricity [0.1 TWh]	Total	3.0	10.6	3.0
	Domestic	1.0	1.3	1.7
	Overseas	2.0	9.2	1.3
Total energy used [10 ML]* J-POWER Group; including J-POWER alone	Domestic	1,159	1,005	1,062
		1,154	1,005	1,062

* "Total energy consumption" is legally reported values based on the Energy Conservation Act (crude oil equivalent).

Emission to the atmosphere

		FY2022	FY2023	FY2024
Nitrogen oxides (NOx) [kt]	Total	23.9	21.2	21.6
	Domestic	23.0	18.8	20.4
	Overseas	0.9	2.4	1.2
NOx emission intensity [g/kWh]	Domestic	0.48	0.47	0.47
	Overseas	0.08	0.12	0.08
Sulfur oxides (SOx) [kt]	Total	9.3	7.6	8.9
	Domestic	9.3	7.5	8.9
	Overseas	0.0	0.1	0.0
SOx emission intensity [g/kWh]	Domestic	0.19	0.19	0.21
	Overseas	0.00	0.00	0.00
Dust emission [kt]	Total	0.8	0.7	0.7
	Domestic	0.7	0.5	0.6
	Overseas	0.1	0.2	0.1
Dust emission intensity [g/kWh]	Domestic	0.01	0.01	0.01
	Overseas	0.01	0.01	0.01

Sulfur hexafluoride management

		FY2022	FY2023	FY2024
Collection rate at time of inspection [%]	Domestic	99.2	94.6	99.5
Collection rate at time of removal [%]	Domestic	99.3	99.1	99.3

List of Environmental Data (2/3)

Use of water resources

		FY2022	FY2023	FY2024
River water [10,000 m3]	Domestic	5,127,000	5,262,000	5,070,000
Sea water [10,000 m3]	Domestic	944,000	863,000	833,000
Industrial water [10,000 m3]	Domestic	929	840	839
Tap water [10,000 m3]	Domestic	27	27	26
Other water resources [10,000 m3] (e.g. underground water)	Domestic	26	0.0	1.1
Total water intake [10,000 m3]	Domestic Overseas	6,072,300 683	6,126,000 909	5,902,500 683
Highly treated wastewater [10,000 m3]	Domestic	443	348	332
COD in waste water [t]	Domestic	24	20	10
Total water discharge [10,000 m3]	Domestic Overseas	6,071,600 193	6,125,400 152	5,901,800 116
Water consumed [10,000 m3]	Domestic Overseas	607 490	658 757	695 566

Number of sheets of copier paper procured (A4-size equivalent)

		FY2022	FY2023	FY2024
Number of sheets of copier paper procured [10,000 sheets]	Domestic	3,615	3,332	2,982
Green procurement rate [%]		96%	97%	98%

Generation and effective utilization of industrial waste

		FY2022	FY2023	FY2024
Industrial waste generated [10 kt]		195	153	156
Effective use rate [%]	Domestic	96.2%	94.8%	93.1%
including coal ash generated [10 kt]		164	127	129
Effective use rate [%]	Domestic	95.8%	94.8%	92.4%
including gypsum generated [10 kt]		28	22	22
Effective use rate [%]	Domestic	99.9%	100%	100%
including specially-controlled industrial waste generated [10 kt]		0.06	0.10	0.22
Effective use rate [%]	Domestic	50.0%	49.9%	46.5%
Industrial waste discharged [10 kt]	Domestic	7.5	7.9	10.8

Discharge and recycling of waste from plastic products

		FY2022	FY2023	FY2024
J-POWER	Amount of discharge [t] % of recycling, etc. including heat recovery [%]	51 80%	66 83%	67 72%
J-POWER Generation Service*	Domestic	536 35%	568 25%	570 36%
J-POWER HYTEC*	Domestic	523 40%	389 35%	355 54%
Total for other group companies	Domestic	215 60%	178 39%	199 45%
Total for J-POWER Group	Domestic	1,324 43%	1,200 34%	1190 45%

* Falls under the category of high-volume emitters under the Law for Recycling Plastic Materials.

List of Environmental Data (3/3)

Releases of chemicals under the PRTR law (including VOC) Unit: t

			FY2022			FY2023			FY2024		
Material name	VOC	Major usage	Volume handled	Emission to environment	Amount moved in waste	Volume handled	Emission to environment	Amount moved in waste	Volume handled	Emission to environment	Amount moved in waste
Toluene	Yes	Fuel for power generation	14.2	14.2	0	12.0	12.0	0	12.4	12.4	0
Ethyl benzene	Yes	Paint for equipment	1.0	1.0	0	0	0	0	2.5	2.5	0
Xylene	Yes	Paint for equipment	4.9	1.5	0	11.1	1.5	0	2.7	2.7	0
Styrene	Yes	Paint for equipment	1.0	1.0	0	4.1	4.1	0	1.6	1.6	0
1,2,4-Trimethylbenzene	No	Fuel for power generation	2.9	0	0	18.6	0.1	0	0	0	0
Asbestos	No	Heat insulating material	1.5	0	1.5	0.6	0	0	2.2	0	2.2
Hydrazine	No	Water supply treatment	1.0	0	0	1.1	0	0	1.4	0	0
Boron compound	No	Fertilizer additives	15.7	0	0	11.6	0	0	11.5	0	0

Note: The data was compiled for domestic business establishments that handle 1 ton or more of Class I Specified Chemical Substances or 0.5 tons or more of certain Class I Specified Chemical Substances per year.

Scope of data aggregation



Scope of GHG emissions calculation



Scope of environmental data survey and aggregation (domestic) *1



Scope of environmental data survey and aggregation (overseas) *1

Domestic business *2

= Electric power business (transmission) =

J-POWER Transmission Network Co., Ltd. 100%

= Electric power-related and other related businesses =

J-POWER HYTEC Co., Ltd. 100%

J-POWER Generation Service Co., Ltd. 100%

J-POWER Business Service Corporation 100%

J-POWER Telecommunication Service Co., Ltd. 100%

J-POWER Design Co., Ltd. 100%

J-POWER Insurance Service Corporation (100%)

J-POWER EnTech, Inc. 100%

JM Activated Coke, Inc. 90%

J-Wind Service Co., Ltd. (100%)

Miyazaki Wood Pellet Co., Ltd. 98.33%

= Other businesses =

KAIHATSU HIRYOU Co., Ltd. 100%

Biocall Osaka-Hirano Co., Ltd. 60%

Green Coal Saikai Co., Ltd. 60%

Biocall Yokohama-South Co., Ltd. 60%

= Electric power business (generation) =

• Electric Power Development Co., Ltd. —

• J-Wind Co., Ltd. 100%

• J-Wind Kuzumaki Co., Ltd. 100%

• Nagasaki-Shikamachi Wind Power Co., Ltd. 70%

• J-Wind Setana Co., Ltd. 100%

• Esashi Green Energy Co., Ltd. 70%

• Ishikari Green Energy Co., Ltd. 70%

• J-Wind Kaminokuni, Ltd. 100%

• TOSA POWER Inc. 45%

• Kashima Power Co., Ltd. 50%

• Yuzawa Geothermal Power Generation Corporation 50%

• Appi Geothermal Energy Corporation 15%

• J-Solar Co., Ltd. 100%

Overseas business *2

Thailand

• Gulf JP UT Co., Ltd. (60%)

• Gulf JP NS Co., Ltd. (60%)

• Gulf JP NNK Co., Ltd. (60%)

• Gulf JP CRN Co., Ltd. (60%)

• Gulf JP NK2 Co., Ltd. (60%)

• Gulf JP TLC Co., Ltd. (60%)

• Gulf JP KP1 Co., Ltd. (60%)

• Gulf JP KP2 Co., Ltd. (60%)

• Gulf JP NLL Co., Ltd. (44.99%)

• Gulf JP1 Co., Ltd. (60%)

• EGCO Cogeneration Co., Ltd. (20%)

• Roi-Et Green Co., Ltd. (24.7%)

• Yala Green Power Generation Co., Ltd. (49%)

• Kaeng Khoi Power Generation Co., Ltd. (49%)

Indonesia

• PT. BHIMASENA POWER INDONESIA (34%)

• PT. Mulya Energi Lestari (27.23%)

Philippines

• CBK Power Co., Ltd. (50%)

• Lake Mainit Hydro Holdings Corporation (40%)

USA

• Jackson Generation, LLC (51%)

• Tenaska Frontier Partners, Ltd (31%)

• Elwood Energy, LLC (50%)

• Green Country Energy, LLC (50%)

• Pinelawn Power LLC (50%)

• Equus Power I, L.P. (50%)

• Edgewood Energy, LLC (50%)

• Shoreham Energy, LLC (50%)

• Tenaska Virginia Partners, L.P. (15%)

• Orange Grove Energy, L.P. (50%)

• Tenaska Pennsylvania Partners, LLC (25%)

UK

• Triton Knoll Offshore Wind Farm Ltd. (25%)

Australia

• Genex Power Limited (100%)

• Clermont Coal Joint Venture (22.2%)

• Narrabri Joint Venture (7.5%)

• Maules Creek Joint Venture (10%)

China

• Shaanxi Hanjiang Investment & Development Co., Ltd. (27%)

• China Resources Power (Hezhou) Co., Ltd. (17%)

*1 Environmental data are aggregated for J-POWER and its domestic and overseas consolidated subsidiaries (electric power business, overseas business, electric power-related and other related businesses, etc.), taking into account the investment ratios.

*2 The % values indicate the equity held by J-POWER, and these in parentheses indicate the equity held by the affiliated subsidiary.

