



Annual Environmental Operations for 2024

JAS Asset Public Company Limited





Driving Environmental Business

JAS Asset Public Company Limited places great importance on environmental protection and preservation in all aspects of its business operations. Recognizing its responsibility towards society and the environment, the company has established clear environmental policies to integrate environmental principles into every facet of its operations. The company focuses on reducing greenhouse gas emissions and preventing pollution that may arise from its business activities.

The company emphasizes efficient energy and natural resource management to ensure that its operations align with environmental conservation and sustainable resource utilization. This commitment is reflected in the company's internal environmental practices and the cultivation of environmental awareness among employees at all levels.

Furthermore, JAS Asset Public Company Limited is dedicated to supporting sustainable development by continuously integrating environmental principles into its operations. This approach ensures that the company grows in a stable and environmentally responsible manner, contributing to sustainability across economic, social, and environmental dimensions.

Environmental management commitments and goals

JAS Asset Public Company Limited is committed to managing and reducing the environmental impacts associated with its business operations to align with the country’s goals. This includes adapting to and responding to the risks of climate change, both physical risks, which encompass natural disasters and various crises, and transition risks, arising from the rapid changes in policies, regulations, and requirements that affect business operations.

Therefore, the company must consider environmental factors and greenhouse gas emissions, which are key issues being seriously addressed. The company has established policies that focus on ensuring the business operations of the group can coexist harmoniously and sustainably with the surrounding communities and the environment in the long term. This approach also aims to build customer confidence that the company will deliver the highest quality services while maintaining a steadfast commitment to environmental preservation through operations that promote energy conservation and biodiversity management.

In addition, the company has consistently recognized the importance of environmental operations and has developed policies and strategies to drive sustainable business growth. This includes the use of effective environmental management systems to support raising awareness among employees at all levels about environmental preservation, starting with themselves and expanding responsibility across broader levels. The company is determined to operate under the principles of sustainable development, aiming to create a balance between business growth, social responsibility, and environmental conservation, fostering continuous and stable long-term growth.

Carbon Neutrality Organization by the Year 2050

Aiming for Net Zero Emissions by the Year 2065

Environmental Management Approach



Environmental Policy

JAS Asset Public Company Limited (Public) and its subsidiaries (the Company) recognize the importance of integrating environmental responsibility principles into their operational processes systematically and sustainably. The goal is to create a corporate culture that promotes environmental conservation across all aspects of work, from operational staff to senior executives, as well as all stakeholders. This includes building awareness of environmental conservation, reducing the use of unnecessary resources, and managing resources efficiently, while emphasizing the use of renewable resources and clean energy to ensure the organization’s operations align with sustainable development goals.

Additionally, the organization has initiated and supports the continuous development of processes to prevent pollution from the outset. This includes improving operational processes, managing natural resources efficiently, and reducing greenhouse gas emissions from the company's operations, in line with national greenhouse gas management guidelines.

Under this environmental policy framework, the Company has also established regular evaluations and reviews of its environmental practices. This includes monitoring performance, analyzing data, and adjusting strategies to align with changing environmental conditions at both national and global levels, in order to achieve long-term sustainable development goals.

This policy has been approved by the senior management, who are the highest authorities responsible for overseeing and monitoring the company’s environmental operations. It has been officially implemented with comprehensive guidelines that focus on continuous improvements to create positive impacts on the environment, society, and economy. The following approaches have been outlined:

Environmental Management Practices

1. The Company strictly complies with the regulations set by law, including local laws related to the environment, and regularly monitors and assesses compliance with these regulations to ensure compliance with the required standards.
2. The company operates its business with environmental and social responsibility through the management of natural resources and waste, adhering to the principles of the Circular Economy to increase the efficiency of resource use, reduce waste, and reuse materials as much as possible, while also using technology and innovation to improve the production and management processes to minimize the impact on the environment and surrounding communities.
3. The Company shall take measures to prevent and reduce negative impacts from the Company's and its partners' operations that may arise from production, procurement and service activities, both on the Company's and its partners' part, in order to preserve the environment, communities and public health by setting environmentally friendly operating standards and supporting the use of sustainable technologies.
4. The Company supports the creation of environmental awareness by organizing training, public relations and providing environmental knowledge to employees and stakeholders to prevent possible negative impacts on the environment and create a sustainable society.
5. The Company is committed to transparently disclosing information about its operations related to natural resource and environmental management, presenting both success and factual information, and reporting progress and performance to all stakeholders through various channels, such as the annual sustainability report.
6. This policy shall be enforced on the Company and disseminated to the public for stakeholders to be aware of. Compliance with the policy shall be measured and verified by internal departments and/or external independent departments. The Company considers compliance with this policy to be the duty and responsibility of all levels of employees, including key business partners, who must strictly comply in order to create sustainability both at the corporate level and for society at large.



<https://www.jasasset.co.th/storage/document/cg/environmental-policy-th.pdf>

Environmental Policy



Biodiversity and forest conservation

Amid increasingly severe climate change, which directly impacts biodiversity and ecosystem balance, JAS Asset Public Company Limited recognizes the significance of these effects and is committed to conducting business with sustainability in mind at every stage of the value chain. This includes transportation, water and energy resource utilization, warehouse management, and distribution. The company acknowledges that these activities could negatively impact the environment and biodiversity if not managed and controlled appropriately.

To address this, JAS has established a formal biodiversity policy, approved by the Board of Directors, demonstrating its commitment to minimizing environmental impacts from its business operations. This policy outlines clear guidelines for assessing and controlling potential ecological risks arising from the company’s activities. The company follows a systematic impact mitigation approach based on the Biodiversity Mitigation Hierarchy framework, which includes four key steps:

- **Avoidance:** Minimizing encroachment and reducing impacts on ecologically significant natural areas.
- **Reduction:** Implementing processes that mitigate environmental damage.
- **Restoration:** Rehabilitating affected areas to restore them to their original state.
- **Offsetting:** Compensating for natural resource loss in other areas when necessary.

JAS’s biodiversity policy aims to align business operations with ecological balance and biodiversity responsibility. The company is dedicated to achieving No Net Loss (NNL) of biodiversity value and No Net Deforestation, ensuring that forested areas are preserved without net loss. JAS will continuously monitor and evaluate the implementation of this policy to ensure sustainable business operations while contributing to long-term environmental conservation.

In its current operations, JAS demonstrates its commitment to managing and preserving biodiversity in the areas where the company conducts business, ensuring compliance with relevant laws, regulations, and requirements. The company's primary objective is to avoid causing negative environmental impacts that may arise from its business activities.

JAS has also established a clear policy to avoid undertaking projects or business developments in areas of high conservation value or those that are ecologically sensitive. These include UNESCO World Heritage Sites and areas protected under the International Union for Conservation of Nature (IUCN) Categories I-IV, such as national parks, wildlife sanctuaries, and legally designated conservation areas. The company prioritizes the prevention of encroachment and ecological degradation in these biologically significant areas, ensuring that Jaymart’s activities remain environmentally friendly and aligned with sustainable natural resource management.

Furthermore, JAS places great importance on listening to the voices of local communities and all stakeholders who may be affected by its activities. The company has established mechanisms for receiving complaints and maintaining open communication with communities and stakeholders, following human rights principles in line with international standards. This ensures that the concerns and perspectives of nearby communities are appropriately considered, particularly regarding biodiversity conservation and sustainability.

JAS is also committed to preventing and mitigating negative environmental impacts, supporting truly responsible social and environmental development.



<https://www.jasasset.co.th/storage/document/cg/biodiversity-policy-th.pdf>

Biodiversity Policy



Performance results for 2024



Jas Green Village, in collaboration with the Royal Forest Department, distributes saplings to customers in the shopping center.

Jas Green Village, in collaboration with the Royal Forest Department, organized an important activity to promote environmental conservation and natural resource conservation by giving away seedlings to customers who spend money in the shopping mall. The conditions are simple: every customer who brings a cloth bag to use instead of a plastic bag will receive a seedling as a gift to help reduce plastic usage and support tree planting. In addition to reducing the amount of plastic waste, it also helps increase green space in the city and promotes tree planting in the community. In addition, using cloth bags reduces the use of natural resources in the production of plastic bags, which take a long time to decompose. Organizing this activity therefore creates a good sense of awareness for customers in the shopping mall and invites everyone to cooperate in preserving the environment and using resources sustainably for a better world for the next generation.

Energy Management



Energy management is a key factor affecting the success and sustainability of JAS Asset Public Company Limited. Since the energy consumption in the company’s business operations is linked to environmental conservation and climate change mitigation, the company places importance on efficient energy usage to support sustainable development goals and reduce greenhouse gas emissions that contribute to global warming. In the company’s operations, energy consumption includes electrical systems for managing rental space in shopping malls, lighting systems, air conditioning systems, and fuel used for transportation. Such energy consumption not only affects the company’s operating costs but also its business stability. If an energy crisis occurs, such as a shortage of electricity or fuel, the company may not be able to efficiently manage rental space.

Therefore, the company has planned and set clear measures for energy management, such as improving electrical systems and equipment to be more efficient in energy conservation, choosing renewable energy, and supporting projects that focus on energy conservation and reducing greenhouse gas emissions. In addition, the company aims to create awareness in the organization so that all employees are aware of the importance of using energy efficiently and participating in caring for the environment.

Efficient energy management not only reduces business costs but also promotes a good image for the company as an organization that cares about society and the environment, which will be an important foundation for creating sustainability and stability for the company in the long term.

Energy management goals and performance

Short term : Reduce the amount of electricity purchased from outside. 3% compared to the previous year

Long-term : Increase the proportion of clean energy use to 20% of total energy consumption by 2030.



The amount of energy used purchased from outside at all 3 shopping malls, namely The Jas Wang Hin, The Jas Ramintra and The Jas Urban Srinakarin, in 2024 totaled 11,872.00 MWh, an increase from 2023 or 2.95%.



Energy Management Guidelines

JAS Asset Public Company Limited is committed to efficient and sustainable energy management to cope with the energy crisis and the impact of climate change worldwide. The Company realizes the importance of reducing energy consumption from external sources and increasing the proportion of environmentally friendly renewable energy, such as using solar energy in buildings and rental areas under the Company’s management, which is in line with the global goals under the United Nations Framework Convention on Climate Change (UNFCCC).

In terms of operations, the Company places importance on energy conservation and increasing energy efficiency by using energy-saving technologies in the electrical system, air conditioning system, and lighting system, as well as controlling energy consumption in daily activities, such as setting appropriate on-off times for electrical systems and air conditioners.

In addition, the Company has improved energy-consuming equipment to be environmentally friendly and reduce energy consumption in order to reduce greenhouse gas emissions and promote sustainable business operations.

In addition, the Company has initiated various projects and activities that focus on reducing greenhouse gas emissions, such as increasing green areas in real estate development projects, as well as reducing the use of equipment or processes that generate pollution or use excessive energy. The Company emphasizes promoting employee and business partners’ participation by organizing training and raising awareness among all employees about the importance of energy conservation, as well as communicating and coordinating with business partners to create cooperation in reducing energy consumption in all processes to maximize energy management efficiency.

The Company has set clear goals and indicators for reducing energy purchased from external sources, and has consistently monitored the results, along with reporting progress in the Company’s annual report. With these guidelines, JAS Asset Public Company Limited aims to create a positive impact on the environment, reduce greenhouse gas emissions, and increase energy efficiency in all operational processes to create long-term sustainability and be a part of preserving the environment to remain intact in the future.

Install Solar Rooftop to reduce electricity costs and reduce greenhouse gas emissions.

To achieve the goal of reducing greenhouse gas emissions in 2024, the Company has installed a solar cell system under the Private PPA or “Private Power Purchase Agreement”, which is a contract to buy and sell electricity generated from solar energy. The installation and contract for the purchase of electricity are carried out by JGS Synergy Power Co., Ltd., a subsidiary of Jaymart, which operates a renewable energy business with full-service.

- Two shopping malls were added : Jas Green Village Bang Bua Thong and JAS Green Village Prawet.
- From the original 3 shopping malls : The Jas WangHin, The Jas Village Amata and Jas Green Village Kubon

Currently, there are 5 branches with installed solar cell systems under Private PPA. In 2024, the company purchased electricity units from JGS Synergy Power Co., Ltd. in the amount of 1,627,532.24 kWh, for 5,279,677.80 baht, which can help reduce greenhouse gas emissions by up to 813.60 tCO₂eq, equivalent to the absorption of CO₂/year by approximately 54,240 trees (this is an estimated figure for electricity production and greenhouse gas absorption per year).



Performance results for 2024

Management of energy consumption proportions

The Company has a policy that focuses on using energy efficiently to reduce the impact on the environment and climate change. The guidelines are to increase the use of electricity from renewable energy sources and increase energy efficiency. In 2024, the Company's energy will be used from two types of energy sources: non-renewable energy sources and renewable energy sources, as follows:

From depleted energy sources

Electricity from direct production sources in 2024 used electricity from the Metropolitan Electricity Authority, amounting to 11,872.00 megawatt-hours, or 86.29 percent of total energy used, for use in air conditioning systems, electricity, lighting, electricity for shops, including tenants, and for normal activities within the company.

From renewable energy sources that are naturally renewable

The company is committed to using renewable energy to generate electricity, starting with the installation of Solar Rooftop panels on the roof of a community mall building under a Private PPA or "Private Power Purchase Agreement", which is an installation with a contract to buy and sell electricity generated from solar energy.

Installation and power purchase agreements are carried out by JGS Synergy Power Co., Ltd., a subsidiary of Jaymart, which operates renewable energy businesses with comprehensive services.

In 2024, electricity generated from renewable energy sources or Solar Rooftop from 5 Community Malls, namely The Jas WangHin, The Jas Village Amata, Jas Green Village Bang Bua Thong and JAS Green Village Prawet and Jas Green Village Kubon, totaling 1,627.53 megawatt-hours, or 13.71% of total energy used.

Proportion of total energy use in 2024 (percent)



Promote the wise use of energy

JAS Asset Public Company Limited places importance on efficient energy use and energy saving in all operational processes, emphasizing practical measures in the office and common areas to promote the reduction of unnecessary energy consumption and reduce the impact on the environment.

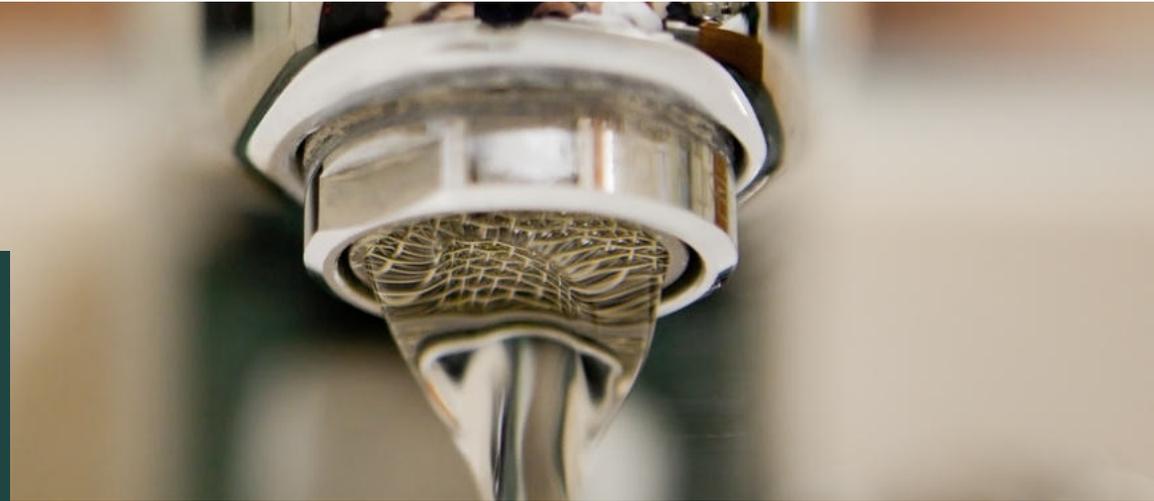
In the office area, the company campaigns for employees to be aware of efficient energy use by posting warnings to turn off lights, air conditioners, and electrical appliances when not in use. In addition, the company promotes a culture of energy saving through providing knowledge and organizing activities to create environmental awareness among employees.

For common areas, which must take into account the convenience of service users, the company has set appropriate guidelines, such as turning off air conditioners 30 minutes before closing time to save energy without affecting the user experience. In addition, lighting in common areas is controlled to be appropriate for the time and usage requirements to increase energy efficiency and extend the lifespan of various devices.

The company arranges for regular inspections of electrical appliances in the office. Maintaining these devices helps reduce the waste of energy from substandard devices and helps operations run smoothly. These guidelines reflect JAS Asset Public Company Limited's intention to promote environmentally responsible operations and encourage employees and related parties to jointly conserve energy, which is an important part of the organization's long-term sustainability goals.



Water management



Water resources are considered as a very important resource for human life and economic development of the country. Because water resources play an important role in agriculture, industry, recreation and other human activities. However, the current intensification of climate change has significantly affected the quantity and quality of water resources.

These factors include many factors such as physical shortages that cause unseasonal rain, resulting in water shortages (droughts) and floods (floods), as well as inefficient water management or inadequate infrastructure for appropriate water allocation. Due to these problems, effective water resource management is a major challenge for utility providers, both in terms of providing sufficient water for various business activities without violating the rights of individuals, juristic persons or other related groups who rely on water resources together.

JAS recognizes the importance of water resource management in the organization by emphasizing the efficiency of water management in order to allocate water sufficiently and sustainably. In addition, the company is committed to taking care of the quality of wastewater before discharging it outside the area. This process aims to prevent negative impacts on the community, society and the surrounding environment.

Water management goals and performance

Short-term: Reduce water usage per employee by 3% compared to the previous year.

Goals

Water usage at all 3 shopping malls, namely The Jas Wang Hin, The Jas Ramintra and The Jas Urban Srinakaran, in 2024, totals 111,109 cubic meters. *Increased from 2023 by 63.14 percent.

Performance Results

Performance results for 2024

Water use and water management

The Company currently uses water from water purchases from suppliers, conducting detailed water source inspections and checking water quality to meet standards that meet the requirements of the Company’s water quality improvement system. In addition, the Company promotes and supports employees to be aware of the importance of water resource conservation and the most efficient use of water.

This is done through public relations through media and installation of signs to campaign for water conservation in areas where water is used, such as bathrooms, sinks, and dishwashing sinks. The Company also regularly inspects equipment related to water use to ensure that it is ready for use and free from damage or leaks that could lead to unnecessary water loss. These measures reflect the Company’s commitment to efficient and sustainable water resource management.



Wastewater treatment before disposal

The Company places importance on managing both positive and negative impacts resulting from the Company’s operations. Therefore, it has installed an aeration pond wastewater treatment system, which uses the process of adding air to water to support water circulation and the decomposition of organic matter in wastewater.

This results in better quality treated wastewater. The Company has established wastewater discharge control procedures, including detailed water quality inspection processes, systematic recording and reporting, and maintenance of equipment in the wastewater treatment system, such as pipe systems, grease traps, wastewater pumps, treatment ponds, and aeration pumps. All of this is carried out in accordance with a strict preventive maintenance plan.

In addition, the Company regularly inspects the quality of wastewater to ensure that it meets the criteria set by law before releasing it to the outside, to ensure that the wastewater meets the specified standards and does not affect the surrounding communities or natural water sources. The Company is committed to operating with environmental and social responsibility in order to create long-term sustainability.

Waste management



The Company realizes the importance of waste management, not only among the group of entrepreneurs but also the surrounding communities, to prevent negative impacts that may arise from business activities in all aspects. This management is integrated with the ESG (Environment, Society and Corporate Governance) dimension to ensure that the organization does not violate the rights of all stakeholders and prevent waste management problems that may arise from the business process.

The Company is committed to reducing the impact on nature, the environment and global warming through sustainable waste management approaches by initiating various projects, such as joining the Care the Whale network with the Stock Exchange of Thailand to promote the organization's waste management.

In addition, the Company has campaigned for employees to reduce waste creation from the beginning, separate waste before disposal and manage waste correctly according to type, and support the reuse of waste for maximum benefit through the Recycle and Upcycle processes. The Company realizes that improper waste management can have a severe impact on the environment. Therefore, the Company supports and encourages all executives and employees to participate in the waste management process continuously through various projects to control and reduce possible impacts to the least, in line with the goal of sustainable business operations and environmental responsibility.

Waste management goals and performance

Short term : Reduce the amount of waste generated from internal operations by 5% by 2026.

Goals

In 2024, the period from 1 January – 31 December 2024 at all 3 shopping malls, namely The Jas Wang Hin, The Jas Ramintra and Jas Green Village Khubon, in 2024, the total amount of waste generated from operations was 194,382.50 kilograms. * Increased by 94.37% compared to 2023.

Performance Results

Performance results for 2024

Waste management from shopping centers

The company recognizes the significant environmental impact of waste and is committed to sustainable waste management. As part of this commitment, the company has continuously participated in the Care the Whale – "Invisible Waste" project by the Stock Exchange of Thailand. This initiative provides guidelines, networks, and tools for managing waste at all stages—upstream, midstream, and downstream. Additionally, the project includes a platform that calculates greenhouse gas emission reductions resulting from proper waste management.

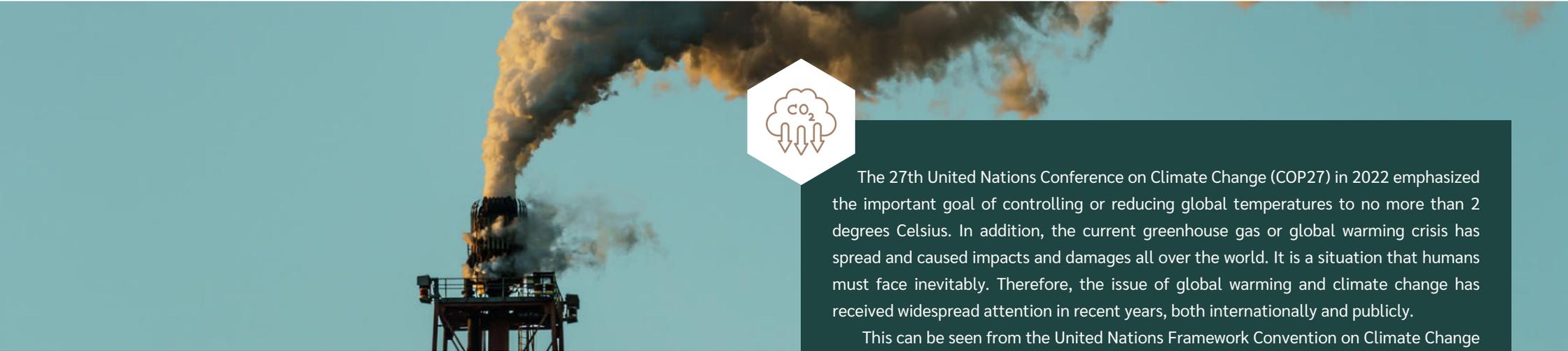
The company has enhanced its waste segregation process and actively promotes awareness among employees and retail tenants about the importance of proper waste sorting. This initiative aims to foster environmentally friendly behavior changes and ensure that waste is processed correctly. Waste sorting stations have been implemented across various areas, including offices, common areas, and different zones within the shopping center. The company categorizes waste into three types:

1. General waste
2. Recyclable waste
3. Organic waste

This classification allows for proper recycling and disposal according to waste type. Furthermore, the company actively raises awareness through various communication channels, such as internal emails, announcements, and company media platforms. Employees, retail tenants, and customers are encouraged to participate in waste reduction efforts, maximize resource efficiency, and separate waste before disposal under the "Invisible Waste" concept.



Greenhouse gas management



The 27th United Nations Conference on Climate Change (COP27) in 2022 emphasized the important goal of controlling or reducing global temperatures to no more than 2 degrees Celsius. In addition, the current greenhouse gas or global warming crisis has spread and caused impacts and damages all over the world. It is a situation that humans must face inevitably. Therefore, the issue of global warming and climate change has received widespread attention in recent years, both internationally and publicly.

This can be seen from the United Nations Framework Convention on Climate Change (UNFCCC), which is a collaboration of international organizations to solve the problem of global warming. Global warming does not only make the world's temperature hotter and the seasons change, but also brings new epidemics, unexpected natural disasters such as storms, severe floods, tsunamis, landslides, earthquakes, and many other natural phenomena that cause great damage to humanity. The changes have affected people's lives, consumption behavior, and financial status, as well as the issuance of new regulations to determine guidelines for solving the problem.

Greenhouse gas management targets

Short term: Commit to reducing annual greenhouse gas emissions by at least 3 percent per year.

reduce
3%

Medium term: Achieve carbon neutrality by 2025.

2050

Long term: Aim for net zero greenhouse gas emissions by 2025.

2065

Performance Results

Greenhouse gas emissions at all 3 shopping malls, namely The Jas Wang Hin, The Jas Ramintra and Jas Urban Srinakaran, in 2024, total 6,033.66 tCO₂e.

Greenhouse gas management guidelines

The Company realizes the importance of greenhouse gas management and has initiated various projects to support the reduction of greenhouse gas emissions from various activities in the business process through campaigns to reduce the use of resources and energy within the Company, increasing the proportion of renewable energy use instead of fossil energy use, and using technology to reduce the use of natural resources to support the reduction of greenhouse gas emissions. It also continuously operates the Care the Whale project with the Stock Exchange of Thailand to demonstrate its efforts to reduce greenhouse gas emissions from various activities within the organization, which focuses on reducing greenhouse gas emissions from business operations to meet the target, aiming for carbon neutrality by 2030 and aiming for net zero greenhouse gas emissions by 2050.

Care the whale project with the Stock Exchange of Thailand

Care the Whale “Invisible Waste” is a project that focuses on reducing greenhouse gas emissions through effective waste management using the concept of “Invisible Waste”, which aims to eliminate the word “waste” from our way of life by making the most of resources before things are considered waste. It also applies the principles of the Circular Economy to waste management to create a proper and sustainable management path, which is part of solving the waste problem that leads to global warming.

Our company has continuously participated in the Care the Whale “Invisible Waste” project, which aims to jointly solve environmental problems through waste management, starting from sorting, collection, and properly disposing of waste. In addition, we also support behavioral adjustments in waste management of our personnel and communities to be correct and efficient in order to achieve the goals with our partner network in the Zero-waste to Landfill project, which aims to eliminate waste from landfills in the future.

Guidelines for Project Participation

JAS has a clear approach to promote and develop waste management within office buildings, focusing on improving the waste sorting process from the beginning so that all types of waste are disposed of or recycled as much as possible in the correct and environmentally friendly way, under the concept of “Invisible Waste”, which aims to reduce the amount of waste to the minimum.

One of the important measures is to create awareness among employees about the importance of waste separation and to encourage all employees to have the correct knowledge and understanding of waste separation. The company has arranged a place for waste separation and clearly classified the types of bins at every necessary point in the office building to promote and support behavioral changes in waste disposal to be environmentally friendly.

JAS has set up waste sorting points in every branch of the shopping center to meet demand. Every point has 3 types of bins: 1) General waste, which is waste that cannot be recycled; 2) Recyclable waste, which is waste that can be reused, such as plastic, paper, and glass; and 3) Organic waste, which can naturally decompose and can be used to produce compost.

This waste classification will facilitate customers and consumers to separate waste correctly from the beginning. Waste that has been separated can enter the recycling process or be disposed of according to type appropriately, efficiently, and environmentally friendly.

Summary of waste separation operations results

***From January 1 - December 31, 2024, a total of 365 days, can help reduce the amount of greenhouse gases as follows:**



By classifying the types of waste separation as follows:

*Summary of data from the Stock Exchange of Thailand Climate Care Platform – SET Social Impact

Waste sorting list 2024	kg	kgCO ₂ eq	Trees
List of waste sorting items	3,187.50	3,072.85	343
plastic bottles or PET bottles	2,163.00	171.81	248
Colored glass bottles	622.50	67.62	19
Glass bottle	245	397.15	8
Corrugated cardboard box / Cardboard box	70	31.53	35
Food scraps	56	96.45	13
Book of paper	17	68.08	11
Black and white paper	12	9.13	8
Aluminum cans	1	1.03	1
Cloudy plastic bottle (label removed)	1	0	0