

Greenhouse Gas and Energy Management



Challenges and Opportunities

Climate change presents a significant and multifaceted challenge, with far-reaching impacts on natural resources, infrastructure resilience, energy costs, and business continuity. These impacts are particularly material to the telecommunications industry, which depends on reliable networks and systems. Thus, the rising incidence of extreme weather and the ongoing uncertainty associated with climate change pose escalating risks that require proactive enterprise responses. These challenges are further compounded by evolving environmental regulations and growing stakeholder expectations for effective, transparent, and accountable climate-related management.

In response to these climate-related pressures, governments and public institutions have intensified efforts to advance the transition toward a low-carbon economy. International and national frameworks, including the Paris Agreement and Thailand's Nationally Determined Contributions (NDCs), provide a clear pathway for reducing greenhouse gas emissions and enhancing energy efficiency. These commitments are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDG 13: Climate Action. While such initiatives introduce new considerations for businesses, they also create opportunities for the Company to improve energy performance, optimize costs, and strengthen long-term competitiveness and value creation.

Commitment to Responsible Business Operations

JAS pledges to advance its climate change management through a comprehensive and structured approach. This commitment encompasses the reduction of greenhouse gas emissions, the optimization of energy efficiency, robust governance and oversight by the Risk Management Committee, and transparent disclosures aligned with applicable standards and frameworks. Climate change-related risks, including those linked to GHG emissions, are systematically integrated into the enterprise risk management framework. This approach enables the Company to strengthen its operational efficiency and accelerate the global transition to a low-carbon economy. Furthermore, the Company advocates for and supports public policies and regulatory frameworks on climate change at both national and international levels. The Company recognizes that policy alignment with the goal of limiting the global average temperature increase to well below 1.5°C is fundamental to fostering long-term economic resilience, competitiveness, and sustainable value creation. Moreover, the Company remains committed to constructive and continuous engagement with governments, regulators, and relevant stakeholders to contribute to the enhancement of climate-related policies, while ensuring the effective integration into our business strategy and operations.

Management Approach

Topic

Approach

Governance

- Integrate climate-related issues into the Company's Sustainability Policy and Environmental Policy
- Provide oversight through the Risk Management for Sustainable Development Committee

Topic	Approach
Risk Management	<ul style="list-style-type: none"> Assess both physical and transition climate-related risks across the organization Incorporate climate risks into the enterprise risk management (ERM) processes
GHG Management	<ul style="list-style-type: none"> Establish targets and collect greenhouse gas emissions data across Scope 1, 2, and 3, with verification in accordance with applicable standards Implement greenhouse gas reduction initiatives and promote environmental awareness throughout the organization
Energy Management	<ul style="list-style-type: none"> Enhance energy efficiency across buildings and operational equipment Execute electricity reduction programs and encourage energy-efficient behaviors among employees
Long-term Transition	<ul style="list-style-type: none"> Ensure transparent disclosure of climate-related information in line with international standards Aim to align operational practices with low-carbon economy pathways and ensure responsible investment decisions

Climate Change Governance

The Company integrates climate change considerations into its Sustainability Policy and Environmental Policy, designating climate change as a material issue that requires a systematic and structured approach. This integration enables the efficient mitigation of environmental impacts, while strengthening long-term business resilience and sustainable growth.

JAS has established a Risk Management for Sustainable Development Committee, comprising Board-level members, to oversee climate change-related matters. The Chairman of the Committee, an independent director, is mandated to supervise and monitor climate change management performance and to report progress to the Board of Directors. The Committee serves as the principal governance body responsible for the oversight of environmental, social, and governance risks, including those associated with climate change. Its responsibilities include setting policies, defining risk management measures, and providing strategic direction to ensure alignment with national targets and the Company's climate-related commitments. In addition, the Committee also reviews and evaluates the effectiveness of climate-related risk management practices.

For more information,
please visit these links.



[Sustainability Policy](#)



[Environmental Policy](#)

Climate Change Governance Structure

1

Board of Directors

- Review and approve climate change-related policies, goals, and strategy
- Monitor performance on sustainability and climate change management

2

Risk Management for Sustainable Development Committee

- Monitor climate change-related risks and opportunities and define appropriate risk management measures
- Oversee the development and review of policies, targets, and strategies related to climate change management to be approved by the Board of Directors
- Monitor the Company's sustainability performance, including climate change management, and report progress to the Board of Directors on a quarterly basis

3

Sustainability Working Group

- Assess the Company's sustainability risks, including climate change-related risks, and establish a risk management framework
- Formulate climate change management policies, targets, and strategies in line with national and international standards
- Monitor and report progress on sustainability risk management to the Risk Management for Sustainable Development Committee on a quarterly basis

4

Carbon Footprint Working Group

- Collect data on the Company's greenhouse gas emissions and oversee the verification of greenhouse gas management
- Develop projects and monitor performance related to greenhouse gas emissions reduction
- Monitor progress and report to the Board of Directors on a quarterly basis

- Drive the implementation of climate change-related risk management projects and enhance employee engagement across the organization
- Monitor climate situations affecting business operations

Climate Change-Related Risk Management

JAS recognizes the potential impacts of climate change on telecommunications infrastructure, office buildings, power systems, and network equipment that require high reliability. To address these challenges, the Company conducted climate risk assessments covering both physical and transition risks. These insights guide the development of appropriate risk management approaches, improve operational processes, and enhance long-term resilience across the organization.

To ensure effective implementation, climate change-related risks are fully integrated into the enterprise risk management framework and corporate strategy, ensuring that assessment

outcomes directly inform decision-making and climate adaptation planning. Key measures include designing and maintaining infrastructure to withstand extreme weather events, preparing backup power and network systems, and monitoring regulatory developments and low-carbon technologies.

Furthermore, the results of climate risk assessments also guide strategic decisions, project prioritization, and investment considerations related to infrastructure and energy use. This approach enhances the organizational adaptability, business continuity, and supports effective cost risk management over the short, medium, and long term.

Type	Timeframe	Description	Climate Adaptation Measures
Physical Risks	Short-term (1-5 years)	<ul style="list-style-type: none"> • Extreme weather events such as heavy rainfall, flooding, storms, and heatwaves may disrupt telecommunications infrastructure, power systems, and critical building equipment • Rising temperatures may increase the operational load on air-conditioning 	<ul style="list-style-type: none"> • Design equipment installation areas to enhance emergency readiness, including backup power systems and network redundancy • Maintain cooling systems and mechanical equipment on a continual basis • Develop a business continuity plan

Type	Timeframe	Description	Climate Adaptation Measures
		<p>systems required to maintain stable conditions for network equipment</p>	<p>(BCP) to enable a rapid response to unforeseen events</p>
	<p>Medium and long-term (5-10 years)</p>	<ul style="list-style-type: none"> Changes in natural resources, such as drought and water resource volatility, may affect utility systems and building maintenance activities 	
<p>Transition Risks</p>	<p>Short-term (1-5 years)</p>	<ul style="list-style-type: none"> More stringent government regulations and international standards on GHG reduction and climate-related disclosures may require enhancements to data collection processes and energy management practices 	<ul style="list-style-type: none"> Closely monitor applicable laws, standards, regulatory requirements, and clean energy trends Improve energy efficiency through initiatives such as transitioning to LED lighting and reducing energy consumption in office areas Consider investment adjustment and the adoption of alternative energy solutions to align with a low-carbon economy pathway
	<p>Medium and long-term (5-10 years)</p>	<ul style="list-style-type: none"> Energy cost volatility, driven by national clean energy policies promoting renewable energy, may affect future operational expenses The transition to a low-carbon economy may impact business models and future investment strategies 	

Greenhouse Gas Management

The Company places strong emphasis on the systematic management of greenhouse gas emissions, encompassing data collection, performance monitoring, and transparent disclosure. To enable effective implementation, a Carbon Footprint Working Group has been established to compile, verify, and report GHG emissions data in accordance with ISO 14064-1. The reported information is subject to external verification under ISO 14064-3. This includes direct emissions (Scope 1), indirect emissions from electricity consumption (Scope 2), and other indirect emissions (Scope 3). This process ensures data accuracy and reliability, while enabling informed planning and the implementation of emissions reduction initiatives.

Under its climate management plan, JAS has set targets to achieve carbon neutrality by 2030 and net-zero greenhouse gas emissions in the long term. These commitments are underpinned by initiatives aimed at reducing both direct and indirect greenhouse gas emissions. Key efforts include encouraging reduced reliance on private vehicles, implementing the “JAS Forest Planting” project to strengthen long-term carbon sequestration capacity, and improving energy efficiency measures through campaigns such as the “We Rest, Earth Rests” project and the transition to LED fixtures. These actions contribute to sustained reduction, both direct and indirect greenhouse gas emissions, and the achievement of the Company’s long-term climate objectives.

Performance	Unit	2025*	Short-Term Goal (2027)	Long-Term Goal (2030)
Carbon Intensity (Scope 1 and 2)	tonCO ₂ e/MB	0.0899 (Reduced by 25% from base year 2024)	Reduce 15% greenhouse gas emissions from base year 2024	Achieving carbon neutrality
Carbon Intensity (Scope 1, 2 and 3)	tonCO ₂ e/MB	0.3056 (Reduced by 33% from base year 2024)		

*The Company’s greenhouse gas emissions have been verified by the School of Energy and Environment, University of Phayao, and are currently in the process of being registered with the Thailand Greenhouse Gas Management Organization (TGO) (Scope 1, 2 and 3), which is expected to be completed by May 2026.

Performance	2022*	2023	2024	2025**
Scope 1 (tonCO ₂ e)	27	86	53	12
Scope 2 (tonCO ₂ e)	155	221	356	336
Scope 3 (tonCO ₂ e)	-	1435	964	835
Scope 1, 2, and 3 (tonCO ₂ e)	182	1,435	1,373	1,183

*In 2022, only Scope 1 and 2 emissions were verified

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Environmental Support and Certifications

JAS places strong emphasis on responsible climate action to address increasingly stringent environmental requirements and to reinforce stakeholder confidence in its operations. In line with this commitment, the Company has implemented carbon management measures, obtained certification under nationally recognized standards, and supported carbon market mechanisms to drive measurable reductions in net greenhouse gas emissions.

In addition to offsetting unavoidable emissions through carbon credits, the Company has also joined as a member of the Thailand Carbon Neutral Network (TCNN), contributing to the collective advancement toward carbon neutrality in Thailand. In 2025, JAS received the Carbon Footprint for Organization (CFO) certification and the Carbon Neutral Organization

certification from the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) for the third consecutive year. These recognitions underscore the Company's commitment to strengthening and advancing climate management practices.



JAS Forest Planting for Green Revival

In 2025, JAS implemented a land restoration and long-term carbon sequestration enhancement project through forest plantation covering a total area of 500 Rai in Khao Khlung Subdistrict, Ban Pong District, Ratchaburi Province. The project aims to expand forest areas, enhance biodiversity, and serve as a key measure to mitigate greenhouse gas emissions in support of the Company’s long-term sustainability goals. Under Phase 1, forest plantation was completed across 74 Rai, comprising tree species with high carbon sequestration potential, including 272 Siamese rosewood trees and 12,921 brown salwood trees. This project is estimated to sequester 446 tCO₂e (for trees with a circumference greater than 15 centimeters),

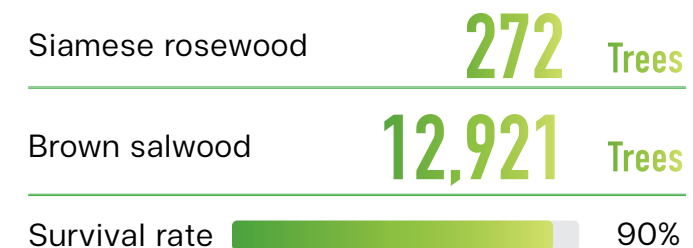


with a seedling survival rate of 90 percent. These outcomes reflect the suitability of the plantation area and the effectiveness of ongoing maintenance and management practices.

Carbon Sequestration*



Trees Planted



*Referring to the Manual on the Potential of Plant Species by Thailand Greenhouse Gas Management Organization (Public Organization) and Faculty of Forestry, Kasetsart University

JAS Car Free Day

The “JAS Car Free Day” project aimed to encourage employees to reduce the use of private vehicles and adopt a greener transportation options, such as public transport, walking, and cycling. The initiative contributed to the reduction of greenhouse gas emissions from employee commuting (Scope 3: Employee Commuting), while fostering environmental awareness across the organization. Project activities included inviting employees to share photos or video clips of their environmentally friendly commuting practices through internal communication channels, inspiring broader participation and encouraging sustained behavioral change. Beyond reducing indirect greenhouse gas emissions, the initiative promotes employee well-being, alleviates traffic



congestion around the office building, and supports the development of an environmentally responsible corporate culture. The project was conducted from February to April 2025.

Output	<ul style="list-style-type: none"> • Reduce Scope 3 emissions by 2 tCO₂e
Outcome	<ul style="list-style-type: none"> • Raise awareness of carbon reduction through green transportation • Promote employee health and well-being • Reduce the number of vehicles and traffic congestion around office buildings

Awareness Building and Engagement in Greenhouse Gas Reduction

JAS recognizes that achieving sustainable reductions in greenhouse gas emissions depends not only on technical solutions and energy management initiatives, but also on the active engagement of all employees. To this end, the Company continuously implements environmental awareness campaigns that encourage responsible, environmentally conscious practices in both workplace operations and everyday life.

Tree Seedlings Giveaway

To encourage employee participation in expanding green spaces and enhancing carbon absorption, JAS partnered with the Nonthaburi Forest Nursery Center to distribute 1,000 tree seedlings to employees for planting at their homes or within their communities. The seedlings comprised a variety of drought-tolerant and shade-providing species, such as tamarind, jackfruit, golden trumpet tree, mahogany, and pink shower tree. Following the project, survey results indicated that more than 92.5 percent of participating employees expressed satisfaction with the activity and demonstrated an increased understanding of the benefits of tree planting. This initiative reinforces the importance of



increasing forest areas and mitigating carbon emissions at the household and community levels, extending the Company's efforts beyond its operation and into society at large.

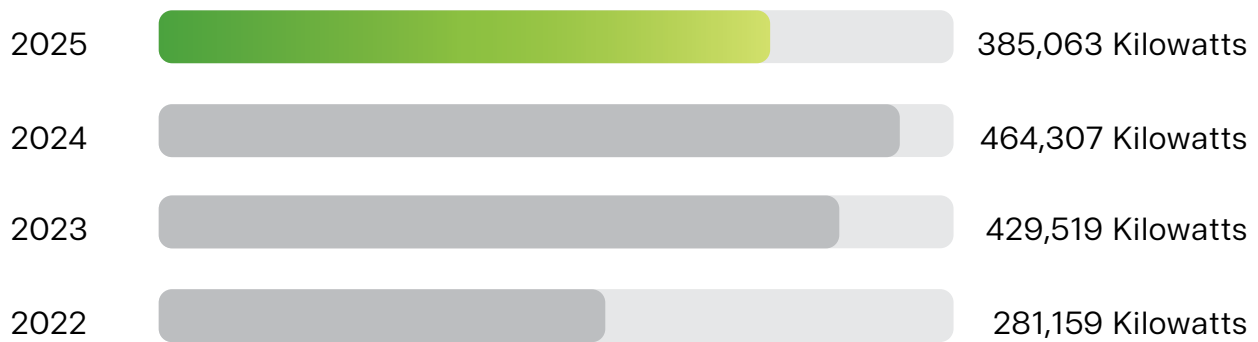
Output	<ul style="list-style-type: none"> • 1,000 seedlings distributed • Participant satisfaction rated at 92.5%
Outcome	<ul style="list-style-type: none"> • Promote environmental awareness by deepening knowledge of tree planting and its benefits • Enhance the expansion of green areas to support sustained carbon absorption

Energy Management

JAS recognizes that energy consumption represents a significant operating cost and a key factor influencing greenhouse gas emissions. Accordingly, the Company pledges to enhance systematic energy management that supports the achievement of our climate goals and the alignment with the United Nations Sustainable Development Goals, particularly SDG 7: Affordable and Clean Energy and SDG 13: Climate Action.

In 2025, the Company implemented a range of energy-related measures focused on improving the efficiency of building equipment, promoting energy conservation awareness among employees, and reducing electricity consumption in office areas. These efforts were complemented by continuous data collection and monitoring of energy use, enabling trend analysis and informing the development of long-term improvement plans.

Total Electricity Consumption



Performance

Total Electricity Consumption*	Unit	2022	2023	2024	2025
	Kilowatt	281,159**	429,519***	464,307***	385,063
	THB	1,742,070**	2,850,035***	2,876,894***	2,337,243

*Energy consumption data have been verified by Most Consultant Company Limited in accordance with ISO 14065:2013, covering electricity consumption data within areas under the Company's control and operational management

**Employees have returned to working from office after working from home from October 1, 2022

***The figures for 2023 covered electricity consumption on floors M, 9, 29, and 30, with the 2024 data expanded to cover areas on floors M, 9, 11, 29, and 30

We Rest, Earth Rests, 1-hour Lights Out

The campaign sought to enhance energy efficiency by implementing a lunchtime lights-off measure during the lunch break on the 29th floor of Jasmine International Tower. This initiative reduced unnecessary electricity use during non-operational periods and fostered a culture of energy conservation within the organization, supporting the Company’s emissions reduction efforts. As a result, electricity consumption decreased from 260,092 megawatt-hours to 203,425 megawatt-hours in 2025, representing a reduction of approximately 22 percent. Beyond energy cost savings, the project also contributes to the achievement of the Company’s greenhouse gas emissions reduction objectives.



Performance					
Total Electricity Consumption	Unit	Q1/2025	Q2/2025	Q3/2025	Q4/2025
	Megawatt	51,373	53,631	54,146	44,275

LED Lighting Replacement

To enhance energy efficiency within office buildings, the Company implemented a project to replace fluorescent lighting with LED fixtures. These fixtures offer a longer lifespan, efficient illumination, and lower energy consumption. In 2025, 311 LED lighting fixtures were installed on the 29th and 30th floors, replacing 457 fluorescent tubes and supporting ongoing reductions in office electricity use. As a result, electricity consumption declined from 72.04 megawatt-hours to 24.52

megawatt-hours, representing a reduction of approximately 65.96 percent. This initiative not only reduced energy costs but also supported the Company’s long-term greenhouse gas emissions reduction efforts. In addition, LED lighting has a longer service life and greater durability compared with conventional fluorescent lamps, resulting in lower maintenance frequency, reduced consumable costs, and improved overall efficiency of the building’s lighting system.

Output	<ul style="list-style-type: none">• Installed 311 LED fixtures
Outcome	<ul style="list-style-type: none">• Achieve long-term reductions in maintenance costs and consumable material expenses• Lower energy consumption while enhancing workplace well-being by providing efficient, adequate, and comfortable lighting conditions• Align with organizational sustainability objectives, supporting the reduction of overall energy use and greenhouse gas emissions• Reduce electricity use by 47.52 megawatt-hours per year• Reduce greenhouse gas emissions by 23.76 tCO₂e per year