



SUSTAINABILITY REPORT 2024

Ratch Pathana Energy Public Company Limited



**MOVING TOWARDS
FOR SUSTAINABILITY**

www.ratchpathana.com







RATCH PATHANA

**MOVING TOWARDS
FOR SUSTAINABILITY**



OVERVIEW



| | |
|--|-----|
| About This Report | 1 |
| Message from Managing Director and Chairman of the Sustainability Committee | 2 |
| Vision, Mission, and Core Values | 3 |
| Ratch Pathana Business | 4 |
| Business Structure and Shareholding | 6 |
| Awards and Achievements | 8 |
| Summary of Key Performance 2024 | 9 |
| Sustainable Business Operations | 10 |
| • Sustainability Policy and Strategy | 10 |
| • Materiality Assessment for Sustainability | 17 |
| • Sustainable Supply Chain Management | 20 |
| • Stakeholder Engagement | 28 |
| • Building Sustainable Customer Relationships | 32 |
| Governance and Economic Dimension | |
| • Good Corporate Governance | 36 |
| • Risk and crisis management | 39 |
| • Anti-Corruption | 49 |
| • Cybersecurity and Personal Data Protection | 55 |
| • Energy Innovation for Sustainability | 59 |
| • Economic Performance | 62 |
| Social Dimension | |
| • Human Rights and Fair Labor Practices | 64 |
| • Employment | 69 |
| • Employee Relations and Engagement | 74 |
| • Human Resource Development | 79 |
| • Occupational Health and Safety | 89 |
| • Community Engagement and Sustainable Social Development | 97 |
| Environmental Dimension | |
| • Environmental Management | 109 |
| • Water Management | 110 |
| • Waste Management | 115 |
| • Air Quality and Noise Management | 118 |
| • Energy Management | 123 |
| • Climate Change | 131 |
| • Biodiversity | 141 |
| GRI Content Index | 146 |

ABOUT THIS REPORT

Ratchaphat Energy Public Company Limited has been publishing its Sustainability Report annually since 2012 to disclose its sustainable business operations and communicate transparently with the public. The report encompasses key Environmental, Social, and Governance (ESG) information relevant to the company's business activities and stakeholders. The reporting period covers January 1, 2024, to December 31, 2024.

This report is prepared in accordance with the Global Reporting Initiative (GRI) Standards and incorporates key ESG metrics. Additionally, it aligns with the United Nations Sustainable Development Goals (UN SDGs) by setting sustainability objectives that support these global targets.

The scope of this report is based on business relevance, data completeness, and the impact on the company's operations, covering the activities of Ratch Pathana Energy Public Company Limited and its subsidiaries, Sahacogen Green Co., Ltd. and Sahagreen Forest Co., Ltd. and Solarist Holding Company Limited.

The content of this report has been reviewed for data completeness and addresses key issues pertinent to the company and its stakeholders. It also includes validation of data accuracy by senior executives of the relevant departments to ensure the reported information is of high quality, complete, standard-compliant, and reliable, while addressing the concerns of all stakeholders. The company is also considering obtaining external verification of the data quality in the future.



Communication channel

**Ratch Pathana Energy Public
Company Limited**

636 Moo 11, Sukhaphiban 8 Road, Nong Kham Sub-district,
Si Racha District, Chonburi Province 20230,

038-481-555

sd@ratchpathana.com

ratchpathana.com



**Message from
Managing Director
and Chairman
of Sustainability
Committee**

The year 2024 marks a significant turning point for Ratch Pathana Energy Public Company Limited as we firmly committed to advancing towards a future of clean energy with stability and sustainability. The company's name changes from "Sahacogen (Chonburi) Public Company Limited" to "Ratch Pathana Energy Public Company Limited", approved by the Shareholders' meeting on April 18, 2024, represents more than just a rebranding but it reflects our organization's modern identity and reinforces our commitment to being a true leadership in clean energy.

This year has presented another set of significant challenges as we drive stable and progressive growth amid major transformations in the energy industry. The company has implemented various strategic adjustments to accommodate changes in the Cogeneration power purchase agreements from the Cogeneration system with the Electricity Generating Authority of Thailand. Our focus has been on developing solar energy projects, managing biomass fuel costs and optimizing operational schemes and scope under operations and maintenance contracts, while maintaining the highest reliability and standards for our industrial customers.

Corporate governance continues to be the cornerstone of our company, and we take pride in maintaining an "Excellent" corporate governance rating for listed companies. Furthermore, we have succeeded in elevating our sustainability assessment score from Level A to "AA" reflecting the dedication of everyone in the organization toward building a secure and sustainable future. These achievements stem not only from our name change or rebranding but result from the collaborative efforts of our employees, partners, shareholders, and all stakeholders who share a common vision for sustainable organizational and societal development. We remain committed to creating clean energy innovations while managing our business with social and environmental responsibility, ensuring that Ratch Pathana Energy Public Company Limited and its subsidiaries continue to grow sustainably and serve as a driving force for Thailand's future.

Suvimol Prataknuakul

Managing Director and Chairman of Sustainability Committee
Ratch Pathana Energy Public Company Limited



VISION

We will be a leading small power producer and relating businesses with the continuous and sustainable developments to maximize the satisfaction of stakeholders.



MISSION

- 01 To produce and distribute high quality and reliable energy to meet the requirements and satisfaction of customers
- 02 To enhance capability and potentiality by continually development
- 03 To earnestly respond to social, partners and employees by management in compliance with the good governance
- 04 To efficiently and effectively operate with the awareness to safety, occupational health hazards and environment



CORE VALUES



P

Positive Thinking



I

Initiative



T

Teamwork



E

Entrepreneurship



P

Proactive

RATCH PATHANA BUSINESS

Ratch Pathana and Affiliates consists of **Ratch Pathana Energy Public Company Limited**, a Small Power Producer: SPP, generating and distributing electricity and steam, located in Saha Group Industrial Park – Sriracha, Chonburi Province. The company established in 1996 and registered as a public company in 2002, stock symbol “SCG”. The major shareholders are Ratch Group PCL. and Saha group

For the business expansion, the company established subsidiaries focusing on the development of renewable energy business along with engaging in community and social development. These subsidiaries include:

1. Sahacogen Green Company Limited operates a very small biomass power plant (Very Small Power Producer: VSPP) located in Saha Group Industrial Park, Lamphun Province.



2. Sahagreen Forest Company Limited is a joint venture with the paper business group of Siam Cement Group, operating a very small biomass power plant (Very Small Power Producer: VSPP) located in Phran Kratai District, Kamphaeng Phet Province.

3. Solarist Holding Company Limited operates a business of generating electricity from solar energy.

4. Impact Solar Company Limited is a joint venture company, operating in the business of generating and supplying Solar Rooftop.

Product and service

Conventional Energy Business



Natural Gas Power Plant

Renewable Energy Business



Biomass Power Plant
Solar PV & Solar Floating

Related Business



Biomass Supply, Plantation, Bio Charcoal



| | |
|----------|---|
| Location | : Chonburi Province |
| Fuel | : Natural gas |
| Products | : Electricity 154.2 MW Steam 110 TPH |
| System | : Cogeneration Combined Cycle |
| <hr/> | |
| Fuel | : Solar Energy |
| Product | : Electricity 8.4 MW |
| System | : Solar Rooftop |



| | |
|---------|----------------|
| Fuel | : Solar Energy |
| Product | : Electricity |
| System | : Solar Farm |



| | |
|----------|-----------------------------------|
| Fuel | : Solar Energy |
| Products | : Electricity 53.2 MW |
| System | : Solar Rooftop Solar floating |



| | |
|----------|--------------------------------------|
| Location | : Lamphun Province |
| Fuel | : Biomass |
| Products | : Electricity 9.6 MW Steam 25 TPH |
| System | : Cogeneration |
| <hr/> | |
| Fuel | : Solar Energy |
| Product | : Electricity 1.5 MW |
| System | : Solar Rooftop |



| | |
|----------|-------------------------------------|
| Location | : Kamphaeng Phet Province |
| Fuel | : Biomass |
| Products | : Electricity 7.5 MW Steam 3 TPH |
| System | : Cogeneration |





KEY BUSINESS TRANSFORMATIONS IN 2024

The year 2024 marked a transformative period for **Ratch Pathana Energy Public Company Limited**, highlighting our commitment to sustainable business development. Key milestones included the following:



Corporate Name and Seal Change

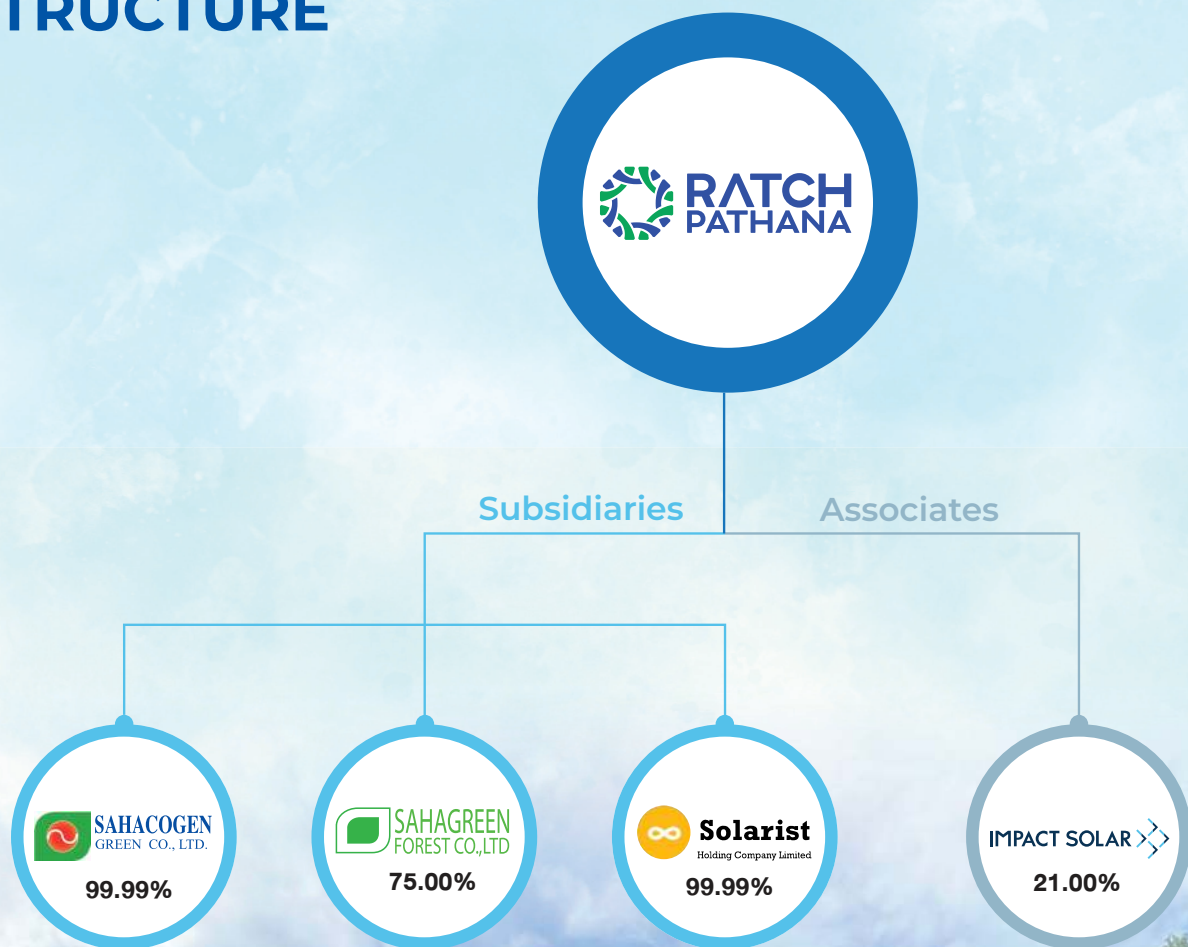
On April 18, 2024, the Annual General Meeting of Shareholders approved the resolution to change the company's name to Ratch Pathana Energy Public Company Limited and redesign the corporate seal. This initiative reflects our modernized corporate identity and strategic focus on clean energy solutions. To maintain continuity and investor confidence, the company continues to use its existing stock symbol, "SCG".

Commercial Operation of a New Power Plant (SPP Replacement)

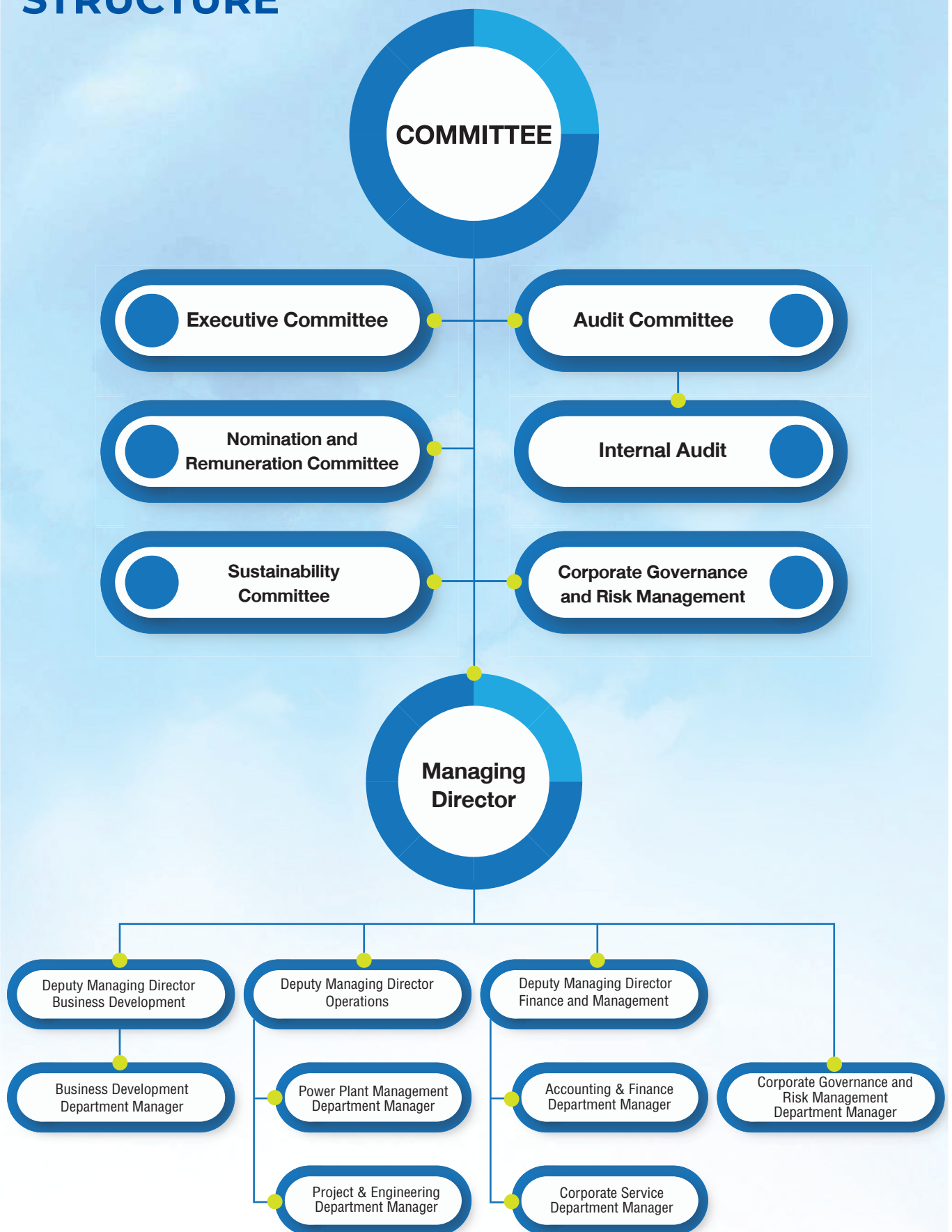
On April 19, 2024, the company commenced commercial operations (COD) of its newly constructed SPP Replacement power plant. This facility boasts a total electricity generation capacity of 79.5 megawatts and steam production of 75 tons per hour, replacing a prior project whose contract with the Electricity Generating Authority of Thailand (EGAT) had expired. With this addition, the company's total installed capacity has increased to 154.2 megawatts of electricity and 110 tons per hour of steam.

These changes reflect the company's commitment to adaptation and development in both business and environmental aspects, while efficiently and sustainably meeting the country's clean energy needs.

BUSINESS STRUCTURE



ORGANIZATIONAL STRUCTURE



AWARDS, ACHIEVEMENTS, AND STANDARD CERTIFICATIONS FOR 2024



Received an AA rating in the SET ESG Ratings and maintained listing on the sustainable stocks index for the 7th consecutive year from the Stock Exchange of Thailand



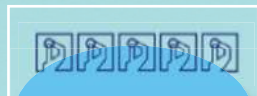
Received the Sustainability Disclosure Acknowledgement Award for the 6th consecutive year from Thaipat Institute



“Excellent” CGR Scoring for Thai listed companies for the 5th consecutive year from the Thai Institute of Directors Association (IOD)



A perfect score of 100% (5 coins) in the Annual General Meeting Quality Assessment (AGM Check-list 2024) by the Thai Investors Association for the 15th consecutive year



The “Investors’ Choice Award 2024” from the Thai Investors Association



Achieved a score of 4.59 out of 5 in the Cyber Resilience Survey 2024 conducted by the Stock Exchange of Thailand



The organizational Carbon Footprint certification from the Thailand Greenhouse Gas Management Organization (Public Organization)



The Carbon Footprint certification for electricity and steam products from the Thailand Greenhouse Gas Management Organization (Public Organization)



The certification as a member of the Thai Private Sector Collective Action Against Corruption (CAC) from the Thai Institute of Directors Association



The Platinum level certification for Occupational Health, Safety and Work Environment Management System for the 2nd consecutive time from the Institute for Occupational Safety, Health and Working Environment Promotion (Public Organization)



KEY PERFORMANCE HIGHLIGHTS 2024

Corporate Governance & Economic



NO

Violations of business ethics complaints

Fraud or corruption complaints

Corporate Governance Rating (CGR) for listed companies:

Excellent

level

Renewed membership in CAC: (Thai Private Sector Collective Action Against Corruption)

100% of

Executives and employees acknowledged anti-corruption policy and passed knowledge assessment

Social



9.7 million baht

Social benefit sharing

NO

labor or human rights complaints/ community grievances

complaints/disputes with customers and business partners

Employee engagement

90%

Average employee training hours:

69.89

hours/person/year

increase from previous year **19.93%**

Lost Time Injury Frequency Rate:

0 / 200,000

incidents working hours

423

people

Created youth volunteers

through the Youth Village Health Volunteer Development Project (Young VHV)

Agricultural waste purchasing program from

2,000

farmers:

287

million baht

Income distribution to communities

Biomass ash value-added project:

Reduced unemployment for **60** people

Supported employment for elderly workers **20** people

(valuing retirement age)

Environmental



Renewable Energy Certificates

105,000

(RECs)

Greenhouse gas reduction:

62,853

(tCO₂ eq)

Greenhouse gas emission intensity per unit of electricity : Carbon intensity (Scope 1+2)

0.288

kgCO₂/kWh

(Scope 1+2+3) **0.369** kgCO₂/kWh

Water reduction in production process through RO Rejected Water Recycle Project:

48,350.20

cubic meters per year

Biomass power plant reduced agricultural waste burning areas equivalent to:

Reduction in sugarcane field burning:

9,565.62

Rais

Reduction in corn husk burning:

51,409.70

Rais



SUSTAINABLE BUSINESS OPERATIONS

The Company is committed to raising the level of corporate sustainability development in line with the Sustainable Development Goals (SDGs) of the United Nations (Sustainable Development Goals: SDGs). Therefore, the organization's sustainability policy has been established. To be a guideline for the business operations of the Ratch Pathana and Affiliates to cover all dimensions. both in economic, social and environmental aspects according to the principles of good corporate governance as follows:



Sustainability Policy

1. Impose a sustainable development strategy covering good corporate governance which includes identifying, analyzing, assessing and responding to the Materiality and risks/opportunities that impact stakeholders and/or the impacts that stakeholders have on the business in the aspects of economic, society, and environment. These include business planning, business decision making, and business operation process to achieve the target in sustainability development.
2. Adhere to the principles of Good Governance toward stakeholders and for the benefit of society by upholding good corporate governance and business ethics in accordance with Code of Conduct and internal audit system. This includes conducting business operations with transparency, honesty, and adherence to integrity and Anti-Corruption. The company does not accept illegal and immoral ways of achieving business targets.
3. Set guidelines for sustainable business operation covering all aspects as follows:

3.1. Economic dimensions

- **Business Chain: be responsible for customers, partners, counterparties in business chain** by Introducing an efficient production system to deliver high quality, safe and trustworthy products to customers, providing fair return to counterparties, creating good relationships with customers, counterparties and business partners, as well as encourage stakeholders throughout business chain to conduct business align with sustainability development guidelines.
- **Innovation:** develop new innovations and technology aiming for business value creation and sustainable growth. This includes supporting and cooperating with local communities and educational institutes to conduct research in improving productivity or recycling residuals from production process into new inventions, as well as practically disseminating knowledge and innovation to society

3.2. Social dimensions

- **Human Rights and Labor Practices:** respect and support the protection of human rights in all forms and provide fair treatment to stakeholders, other people, and employees equally without discrimination based on gender, age, skin color, education, ethnicity, religion and personal beliefs. This includes supporting the employees' fair benefits and welfare in accordance with labor laws.
- **Competency Development and Employee Retention:** emphasize the development of employees' potential and capabilities by supporting sufficient training, providing necessary resources, promoting leadership and professionalism, encouraging creativity and entrepreneurship while also fostering organizational engagement to motivate and retain employees.
- **Health and Safety Environment:** promote regular training and raise awareness of occupational health and safety among employees, while fostering a positive work environment and atmosphere to encourage creativity.
- **Community Involvement and Development:** promote local community development such as education, economy, quality of life, and overall social well-being with a commitment to corporate social responsibility. This includes encouraging employees to regularly participate in community activities and to preserve good cultural traditions of local communities.
- **Participation of Stakeholders:** encourage cooperation among all stakeholders to create mutual benefits, identify solutions, establish proper measures and channels for dissemination and communication which are inclusive, diverse, and aligned with the lifestyles of all stakeholders.

3.3 Environmental dimensions

• **Environmental Management:** operate environmental management by complying with related laws and regulations, seek to enhance efficient environmental management and control, as well as preserving ecosystem and biodiversity. Additionally, all stakeholders are encouraged and supported to recognize the importance of these efforts, which contribute to the sustainable benefit of society and humanity.

• **Efficient Use of Resources:** support efficient resources utilization and seek to reduce and best utilization of resources

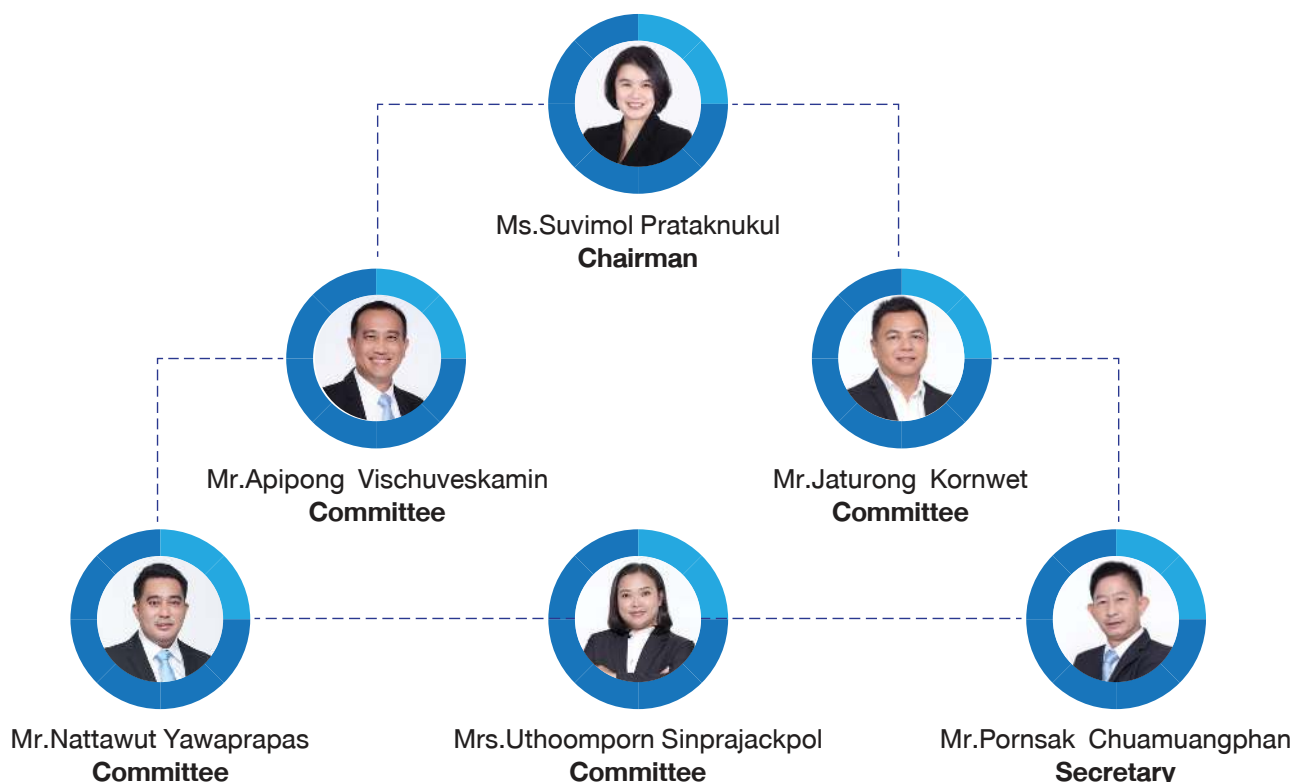
• **Climate Management:** Manage greenhouse gas emissions in strict compliance with relevant laws and regulations. This includes seeking for measures to reduce greenhouse gas emissions and implementing strategies to respond to climate change in order to prevent and minimize potential impacts on business operations.

4. Disclose the sustainability policy, information and operating results in all aspects of sustainability in accordance with the guidelines and requirements of relevant authorities and internationally recognized standards in sufficiency, transparency, and timeliness.
5. Raising awareness about sustainability among the Board of Directors, managements and employees who are all taking parts in supporting and implementing actions based on this sustainability policy.

Sustainability Committee

The Company places great importance on sustainable business development. therefore, has approved the establishment of the Sustainability Committee to be in line with the direction and strategy of business development of the organization whose ultimate goal is corporate sustainability. by appointing company directors and executives or other persons with knowledge and experience. There are at least 3 members and must hold the position for a term of 1 year each, which is appointed by the Board of Directors' meeting every year After the Annual General Meeting of Shareholders.

Members of Sustainability Committee are;



DUTIES AND RESPONSIBILITIES OF THE SUSTAINABILITY COMMITTEE

-  Establish and review the company's sustainability policy, strategies, goals, and sustainability action plans covering economic, social, and environmental aspects to propose to the Board of Directors for approval.

-  Consider and scrutinize plans, projects, activities, and budgets on sustainability, to achieve the company's sustainability goals and policies.

-  Oversee, monitor, and evaluate sustainability performance to ensure its alignment with business conditions, policies, regulations, guidelines, and supervisory authorities' requirements, while continuously enhancing and improving the company's operational standards, and regularly reporting progress to the Board of Directors.

-  Promote the participation of the Board of Directors, executives, and employees at all levels in the company's sustainability activities.

-  Oversee the disclosure of the company's sustainability information to stakeholders in the annual report and sustainability report.

-  Recommend requirements for the company's corporate governance policy and business ethics policies, including the employee code of conduct related to sustainability.

-  Review the company's sustainability policy, goals, and/or sustainability action plans to ensure alignment with laws, regulations, rules, and guidelines set by regulatory authorities, as well as national and international standards, and keep them regularly updated.

-  Review, improve, and revise the charter of the Sustainability Committee and propose it to the Board of Directors for approval at least once a year.

-  Perform any other duties specific to the company's sustainability as assigned by the Board of Directors.

SUSTAINABILITY COMMITTEE REPORT

In 2024, the Sustainability Committee supervised and monitored sustainability operations through quarterly meetings, totaling 4 meetings with full attendance by all 5 committee members. Key highlights include:

- 1** Reviewed the Sustainability Committee Charter, Sustainability Policy, and Climate Change Management Policy to align with current situations.
- 2** Approved the Materiality Assessment and stakeholder engagement process for submission to the Board of Directors for approval.
- 3** Approved the Innovation Development and Management Policy for submission to the Board of Directors for approval.
- 4** Approved targets for energy management, water resource utilization, waste management, and air pollution management for the company and its subsidiaries, for submission to the Board of Directors for approval.
- 5** Approved the Sustainable Supply Chain Management Guidelines.
- 6** Enhanced employee awareness regarding the relationship between sustainability, risk management, and organizational development by integrating sustainability as a core component throughout the business value chain.
- 7** Monitored the preparation of the Carbon Footprint of Organization report, including certification and registration with the Thailand Greenhouse Gas Management Organization (Public Organization).
- 8** Emphasized business operations that responsibly address all stakeholder groups appropriately and supported the Board of Directors in continuously overseeing the company's sustainability operations. As a result, in 2024, the Sustainability Committee received a performance evaluation score of 91.52%, placing it in the "Highest" evaluation category.
- 9** In 2024, The company has been rated AA in the SET ESG Ratings by The Stock Exchange of Thailand in the Resources category for listed companies with a market capitalization of THB 3,000–10,000 million for the 7th consecutive years.



SUSTAINABILITY STRATEGY : 3P

Power of 3P

Driving Business, Building Sustainable Society, For Energy of the Future



Prosperity:

Driving Business Growth with Sustainable Value Creation

The company prioritizes balanced and sustainable economic growth by focusing on:

- **Business Development through Innovation and Technology:** Promoting investments in new technologies and innovations that enhance operational efficiency and reduce costs.
- **Business Risk Management:** Systematically planning and managing risks to effectively respond to market changes and economic conditions.
- **Creating Added Value for Stakeholders:** Developing business models that generate added value for shareholders, customers, employees, and partners based on principles of transparency and fairness.
- **Supporting the Circular Economy:** Implementing circular economy principles in production processes and services to reduce waste and optimize resource utilization.



People:

Building a Sustainable Society, Developing People, Empowering the Organization

People are the organization's most valuable resource. The Sustainability Committee is committed to creating a positive work environment and enhancing employee potential by focusing on:

- **Promoting Positive Organizational Culture:** Cultivating an open, diverse organizational culture that respects the opinions of employees at all levels.
- **Human Capital Development:** Providing training and skills development for employees aligned with industry trends and modern technologies.
- **Health and Safety Management:** Implementing workplace health and safety measures, including appropriate benefits to create work-life balance.
- **Social Responsibility:** Supporting social initiatives that promote education, community development, and improved quality of life.



Planet:

Energy of the Future, Environmental Stewardship, Towards Sustainable Clean Energy

The company prioritizes environmentally friendly business operations that reduce global impact through:

- **Clean Energy Utilization and Greenhouse Gas Reduction:** Focusing on renewable energy use and developing projects to reduce the organization's carbon footprint.
- **Efficient Resource and Waste Management:** Reducing natural resource consumption, improving production processes to minimize waste, and promoting recycling and upcycling.
- **Ecosystem Conservation and Biodiversity:** Supporting environmental restoration projects, tree planting, and maintaining natural balance.
- **Compliance with Environmental Standards and Regulations:** Adhering to legal requirements and international environmental standards, while transparently reporting performance.

The company is committed to establishing and driving sustainability strategies under the **3P framework: Prosperity, People, and Planet** to ensure stable growth, create value for society, and preserve the environment for a sustainable future.

Organizational Sustainability Development Approach

The company is committed to elevating sustainability development in alignment with the United Nations Sustainable Development Goals (SDGs) by operating and disclosing information according to the Global Reporting Initiative (GRI) framework, covering three main dimensions: economic, social, and environmental.

Additionally, the company has adopted the United Nations Global Compact (UNGC) business principles as a key guideline for driving the organization to promote sustainable growth alongside responsibility to all stakeholders.

Adherence to the United Nations Global Compact

| The 10 Principles | Ratch Pathana and Affiliates Operation |
|--|---|
| Human Rights 1. Business should support and respect the protection of internationally proclaimed human rights. 2. Business should make sure they are not participating in activities abusing human rights. | <ul style="list-style-type: none"> Establish guidelines on respecting human rights in corporate governance policy. Promote equality in employment: avoids discrimination based on gender, skin color, race, religion, personal belief, age, disability, or other characteristics not relevant to the job scope. Provides communication channels for employees who want to petition claims of inequitable treatment or infringement on human rights. All claims are processed fairly. |
| Labor 3. Business should uphold the freedom of employees' association and their rights to claim for group negotiation. 4. Business should eliminate all forms of forced and compulsory labor. 5. Business should stop abolition of child labor. 6. Business should stop discrimination in respect of employment and occupation. | <ul style="list-style-type: none"> Under the legal framework, all employees will be treated with respect, dignity and all basic rights in the workplace. All employees will be given an equal opportunity for growth and promotion through encouraged training and exchange of knowledge. Compensation is based on an employee's knowledge, competence, position, responsibility and performance. The performance evaluation will be conducted fairly. A Welfare Committee will be established to consider welfare benefits for employees at all levels. This includes medical treatment, provident funding, and welfare extending to family members. All facilities will operate under a safe, hazard-free environment. Strictly prohibits forced labor, child labor, and illegal labor in all manners of business. |
| Environment 7. Business should support a precautionary approach to environment challenges. 8. Undertake initiatives to promote greater environmental responsibility. 9. Encourage the development and diffusion of environmentally friendly technologies | <ul style="list-style-type: none"> The company defines the organization's vision as "Continuous and Sustainable Organization Development" focusing on business operation in compliance with sustainable growth, responsibility to society and environment. Setting Company's mission to adhere to good governance with respect to society, counter parties and employees; and also respond to any concerns regarding safety, occupational health hazards and environment concerns. Sustainability Committee and Corporate Governance and Risk Management Committee will conduct compliance regularly Information will be transparent, accurate, in plain language, and will be disclosed in a timely manner. Feedback and impacts on nearby communities will be handled in a timely manner. Build and cultivate CSR and environmental awareness to employees at all levels. Resources will be used efficiently and sustainably. Support the development and the use of environmental friendly technology. |
| Anti-Corruption 10. Business should work against corruption in all forms, including extortion and bribery. | <ul style="list-style-type: none"> Policies are required to comply with the law. Anti-corruption, giving and receiving gifts, entertainment, and support/donations must be in line with policies and disclosed to management. Participate in the Collective Action Coalition (CAC) of the Thai private sector against corruption. Foster an organizational culture, mindset, and awareness among employees at all levels regarding honesty and integrity. Management controls and internal audits will operate efficiently and effectively. Establish mechanisms for accurate and transparent financial reporting. Establish communication channels for issues relating to corruption. Ensure safety, anonymity, and protection for anyone who comes forward. Audit Committee will investigate all cases in a transparent and equal manner. |

KEY SUSTAINABILITY ISSUES IDENTIFICATION

Materiality Analysis for Business

The company has reviewed key sustainability issues that are relevant and important to both internal and external business operations. This assessment covers topics that represent risks or negative impacts, as well as opportunities or positive impacts. It also includes the expectations and needs of all stakeholder groups.

The process of selecting material topics and defining the scope of impacts consists of 4 steps, with the following details:



Identification

The Company considers and selects sustainability issues related to Ratch Pathana and Affiliates' business operations by considering the issues that affect the development of the organization both internal and external factors. The internal factors include goals, strategies, and business direction, while the external factors include global sustainability trends, the Global Sustainable Development Goals (SDGs), the 10 pillars of the UNGC (United Nation Global Compact) in economic, social, and environmental dimensions, including the expectations of the stakeholders on the selected key issues. These considerations are then integrated into a Sustainability Framework of the organization.



Prioritization

The company uses information to identify key sustainability issues that are significant to the company and stakeholders. These issues are then categorized and analyzed the level of importance, aligning with the indicators according to the guidelines of GRI by conducting through the Materiality Test. All identified issues are screened based on the influence on stakeholder assessments and decisions and the significance of the organization's economic, social and environmental Impacts. This process involves the participation with executives to prioritize issues related to business operations.



Validation

The important issues are reviewed by the central agency responsible for preparing the company's report. Then the report is presented to the executives for consideration and approval. This ensures that the identified issues are comprehensive and the disclosed content in the report aligns with the principles outlined in the report.



Review

The company conducts interviews and gathers feedback from stakeholders directly after publication of the report to assess the level of satisfaction with the various aspects of the report, covering topics and content, sufficiency of information, reliability of information, presentation method and a copy of the report. This also includes suggestions for other sustainability issues that the company should be presented in the next report. The recommendations gained from this process will be developed for the next year's report to meet the needs and expectations of the stakeholders to the maximum.

Sustainability Materiality Assessment Results


















The company conducts reviews and assessments of key sustainability issues annually. In 2024, the assessment identified a total of 9 key sustainability issues, categorized as follows: 1 very high priority issue, 3 high priority issues, 4 medium priority issues, 1 low priority issue











Materiality Matrix



| Sustainability Issues Affecting Business and Stakeholders | | | |
|---|-----------------------------|---|-------------------------------|
| Very High | High | Medium | Low |
| 1. Energy Management | 2.Environmental Management | 5.Climate change | 9. Human Resource Development |
| | 3.Good Corporate Governance | 6. Cybersecurity and Personal Data Protection | |
| | 4.Supply Chain Management | 7. Community and Social Development | |
| | | 8. Labor and Human Rights | |

KEY SUSTAINABILITY ISSUES

| | Sustainability Issue | Impact Scope | | Alignment | | Management Approach | Target |
|----------------------|---|--------------|----------|--|--|---|---|
| | | Internal | External | GRI | SDGs | | |
| Environment | Energy Management | ● | ● | -GRI 302 |  | <ul style="list-style-type: none"> -Improve energy management efficiency -Implement energy conservation projects -Invest in clean energy businesses -Enhance energy efficiency across all operational areas through workforce participation at all levels | <ul style="list-style-type: none"> -Reduce thermal energy consumption from production processes by 5,000 MMBTU -Reduce electricity consumption in office by 2% - Increase the proportion of electricity production from renewable energy sources to 15 % of total production capacity by the year 2030 |
| | Climate Change Adaptation | ● | ● | -GRI 305 |  | <ul style="list-style-type: none"> -Develop business strategies for climate change adaptation -Reduce greenhouse gas emissions from organizational activities | -Achieve carbon neutrality in 2050 |
| | Environmental Management | ● | ● | -GRI 103 -Disclosure 413-1 |   | <ul style="list-style-type: none"> -Control air and noise pollution within legal standards -Conduct biannual environmental quality assessments to monitor pollution prevention measures and report findings to local communities and relevant agencies | -Full legal compliance with no significant complaints |
| | Waste Management | ● | ● | -GRI 306 |  | <ul style="list-style-type: none"> -Reduce waste from production processes | <ul style="list-style-type: none"> - Achieve zero non-energy-generating waste incineration - Reduce non-hazardous waste sent to landfills by 10% through the 3R process |
| | Water Management | ● | ● | -GRI 303 |  | <ul style="list-style-type: none"> - Optimize water resource utilization - Reduce water consumption and promote water reuse | -Reuse 60,000 m³ of wastewater, achieving a 4% reduction in water usage |
| Corporate Governance | Good Corporate Governance & Risk Management | ● | ● | -GRI 102-18 -GRI 303 |  | <ul style="list-style-type: none"> -Adhere to corporate governance principles -Implement organizational risk management policies | <ul style="list-style-type: none"> -Build stakeholder trust and confidence -Create long-term business value and returns |
| | Anti-Corruption & Fraud Prevention | ● | ● | -GRI 102-17 |    | <ul style="list-style-type: none"> - Certified member of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) | -Zero incidents or complaints regarding corruption or fraud |
| | Sustainable Supply Chain Management | ● | ● | -GRI 2-6 -GRI 3 -GRI 308 -GRI 407-9 -GRI 414 |   | <ul style="list-style-type: none"> - Implement green procurement policies - Conduct annual customer engagement activities | <ul style="list-style-type: none"> -No customer complaints -Achieve customer satisfaction survey targets |
| | Innovation Development | ● | ● | -GRI 3 |     | <ul style="list-style-type: none"> -Develop environmentally friendly technologies and innovations -Invest in clean energy businesses | -Focus on producing eco-friendly products |
| | Cybersecurity | ● | ● | -Disclosure 418-1 |  | <ul style="list-style-type: none"> - Strengthen data protection systems to prevent information leaks - Participate in the 2024 Cyber Resilience Survey, scoring 4.59 out of 5 | -Ensure robust information security for the company |

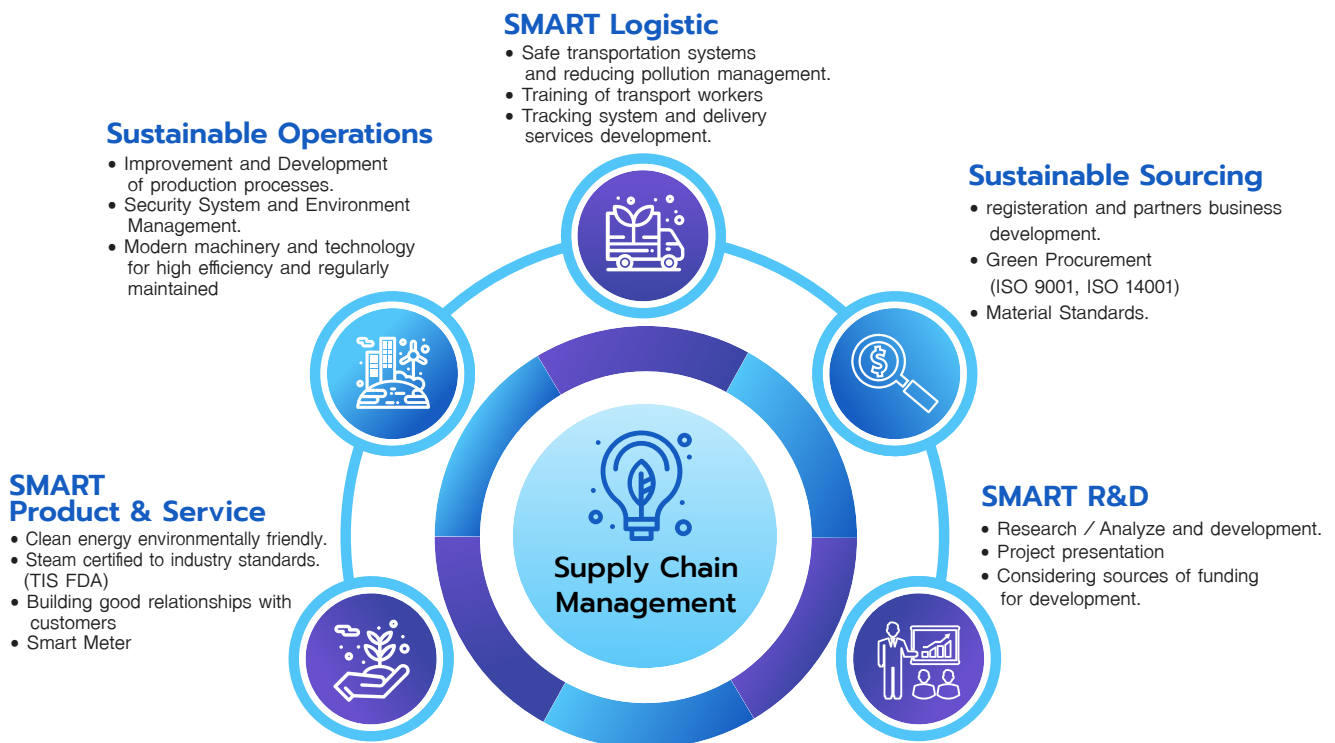
| Corporate Governance | Sustainability Issue | Impact Scope | | Alignment | | Management Approach | Target |
|----------------------|--|--------------|----------|------------------------------------|---|--|---|
| | | Internal | External | GRI | SDGs | | |
| | Personal Data Protection | ● | ● | -Disclosure 418-1 |  | -Enhance personal data management systems | -No personal data breaches |
| Social | Occupational Health & Safety | ● | ● | -GRI 3 -GRI 403 |    | -Strictly comply with occupational health and safety regulations -Promote workplace safety culture -Develop employee safety skills and initiatives | - No fatalities from work-related accidents (employees and contractors) - Zero work-related injuries leading to lost work time |
| | Human Resource Development & Employee Well-being | ● | ● | -GRI 3 -GRI 404 |   | -Foster continuous learning and training -Provide employee benefits -Promote employee engagement and retention | -Increase employee training hours -Employees receive benefits from the company -Reduce employee turnover rate |
| | Labor Practices & Human Rights | ● | ● | -GRI 3 -GRI 401-405 -GRI 418 |   | -Promote gender equality | - Zero cases of labor and human rights violations |
| | Community & Social Development | ● | ● | -GRI 3 -GRI 413 |   | - Engage with communities through communication and participation initiatives - Implement community and social development programs | -No disputes with local communities |



SUSTAINABLE SUPPLY CHAIN MANAGEMENT

Ratch Pathana Energy Public Company Limited operates in the energy sector, specializing in electricity and steam production and distribution. The company is committed to ensuring energy security across the entire value chain, from upstream to downstream, through the production and development of clean energy. Emphasizing safety and environmental responsibility, the company integrates community engagement and local benefits in alignment with green energy principles. Sustainable supply chain management in energy production encompasses the coordination and oversight of all activities related to energy production, including raw material sourcing, production, storage, transportation, and distribution. The goal is to enhance operational efficiency while minimizing environmental impact.

Supply Chain Management in Energy Production Processes



Sustainable Supply Chain Management Practices

The company prioritizes the management of the supply chain by establishing guidelines for practices with partners that promote the development of product/service quality and sustainably manage relationships together. The company believes that this approach can foster potential development, create competitive advantages, and effectively manage business risks for both the company and its partners in the long term. This is achieved through the establishment of policies and practices as follows:

1. **Supplier Selection System:** We have a supplier selection system in supply chain that conducts in compliance with the law, adheres to safety and occupational health standards, and is environmentally friendly. The supplier are engaged based on fair competition, equality, and mutual respect, while acknowledging and managing suppliers' risks to establish appropriate actions for risk prevention and resolution.
2. **Community Engagement:** We consider local suppliers in order to maintain efficiency in building and strengthening relationships within the areas where we operate.

3. **Respect for Human Rights:** We respect human rights and treat our partners and their workforce fairly, in accordance with internationally recognized standards. We foster relationships based on mutual understanding and cooperation, exchanging knowledge, collaborating on development, and enhancing the value of products and services for mutual growth.
4. **Compliance with Trade Agreements:** We adhere to commercial agreements and ensure the accuracy of information provided. In instances where obligations cannot be fulfilled, we engage in proactive negotiations with suppliers to jointly find solutions and prevent potential damage.
5. **Confidentiality and Information Protection:** We protect the confidentiality of our suppliers sensitive information and refrain from using such information for personal gain or the benefit of any third party without proper authorization.
6. **No Unwarranted Gifts or Benefits:** We do not request, accept, or agree to accept assets or any benefits that fall outside of commercial agreements.

The company firmly believes that the esteemed reputation and strong sense of corporate responsibility upheld by the Group will be extended to all suppliers in every procurement process, whether related to goods, services, or business operations.

To ensure ethical business practices throughout the supply chain, Ratch Pathana and Affiliates have established a Supplier Code of Conduct in alignment with relevant regulations, legal requirements, and industry standards. This framework is designed to encourage suppliers to operate with integrity, uphold human rights, ensure fair labor practices, maintain workplace health and safety, and manage environmental responsibilities sustainably. Compliance with this Code of Conduct is an essential component of all commercial agreements and contractual considerations when engaging with suppliers.

1. Business Ethics

Suppliers of Ratch Pathana and Affiliates are required to conduct their business in accordance with universal ethical principles. The key guidelines include:

- 1.1 Business Integrity, Corruption, and Bribery.** Suppliers must adhere to ethical business standards and fully comply with the Group's anti-corruption policy, which strictly prohibits fraud, extortion, deception, or bribery in any form. Any supplier found engaging in bribery—either by offering or accepting illicit payments—will face immediate contract termination. The Group will not be held liable for any losses incurred by the supplier due to such termination. Additionally, suppliers involved in corrupt activities may be subject to legal prosecution.
- 1.2 Compliance with Regulations.** The Company's business suppliers must operate in full compliance with applicable laws, including transnational, national, and local laws, as well as regulations governing business operations and the necessary permits required in each respective location.
- 1.3 Confidentiality.** The Company's business suppliers must prevent any leakage of confidential information belonging to the Company. They must not use the Company's information for unlawful purposes and/or for personal gain and/or for commercial advantage.
- 1.4 Conflict of Interest.** The Company's business suppliers must provide written notification in the event of any conflict of interest arising from interactions between the Company's employees or personnel and the business partners.
- 1.5 Gifts and Rewards.** The Company's business suppliers acknowledge that the Company's employees shall neither give nor accept gifts, rewards, or souvenirs that may influence business decisions or result in unfair advantages, except for gifts exchanged in accordance with customary business practices.
- 1.6 Disclosure of Information.** The Company's business suppliers must maintain accurate records and disclose business, environmental, social, structural, and financial information in compliance with relevant laws and regulatory requirements.
- 1.7 Intellectual Property Protection.** The Company's business suppliers must respect and avoid any infringement of patents or intellectual property rights belonging to others and the Company. Business partners must use intellectual property and trade secrets of others, the Company, and its affiliates strictly in accordance with defined usage conditions. Unauthorized disclosure of the Company's intellectual property without prior permission or consent is strictly prohibited.

2. Human Rights and Labor Practices

Ratch Pathana and Affiliates partners are required to respect labor rights and treat workers fairly in accordance with international standards. The following principles outline the expected practices:

- 2.1 Respect for Human Rights.** Ratch Pathana and Affiliates' suppliers must acknowledge, respect, and promote the human rights of all stakeholders in alignment with the Universal Declaration of Human Rights. This includes employees as well as vulnerable groups such as women, children, minorities, migrant workers, contract laborers, and local communities. They must be treated with the utmost respect for human dignity, ensuring the avoidance of any form of discrimination or demeaning actions based on differences such as race, skin color, gender, ethnicity, language, religion, country of origin, nationality, disability, culture, or social status. Ratch Pathana and Affiliates' suppliers ensure equal treatment for all individuals, regardless of their status.
- 2.2 Freedom of Labor.** The suppliers must not engage in any form of forced or involuntary labor under any circumstances.
- 2.3 Child Labor.** The suppliers must not employ child labor below the legal minimum age and must not assign work to individuals under 18 years old during nighttime hours or in hazardous environments.
- 2.4 Treatment of Female Workers.** The suppliers of the company and affiliates must ensure the protection of female workers from engaging in work that could endanger their health and safety. In the case of pregnant employees, business partners are required to provide protections and benefits as stipulated by law.
- 2.5 Compensation and Benefits.** Business partners must provide fair and lawful wages, along with legally mandated benefits, to their employees. The wages paid must not be lower than the minimum wage prescribed by law, and workers must receive any applicable compensation and statutory benefits as required.
- 2.6 Working Hours.** Business partners must ensure that employees do not work beyond the legally mandated hours, including overtime and work performed on holidays.
- 2.7 Equal Treatment.** The suppliers must uphold principles of equality and refrain from discriminatory practices in employment, compensation, training, promotion, termination, or dismissal. Discrimination based on gender, race, skin color, religion, age, marital status, pregnancy, political views, or disability, among other factors, is strictly prohibited.
- 2.8 Termination of Employment.** The suppliers must comply with all legal requirements concerning employment termination and must not unlawfully terminate employment contracts. Termination must be based on lawful and justifiable grounds with clear evidence demonstrating that the dismissal aligns with legal provisions affecting employee performance.
- 2.9 Humanitarian Considerations.** The Group's business partners must respect employee rights and strictly prohibit any form of physical, verbal, or psychological abuse, including harassment or intimidation of any kind.
- 2.10 Freedom of Association and Collective Bargaining.** The suppliers must respect the rights and freedoms of their employees to join or refrain from joining associations, unions, or federations, as well as to engage in collective bargaining activities.
- 2.11 Community Engagement:** The suppliers must establish and maintain active participation in community engagement initiatives to foster strong and effective relationships within their operational areas.
- 2.12 Community Impact Management:** The suppliers must systematically assess, document, and control any potential environmental impacts that their operations may have on surrounding communities.
- 2.13 Business Partner and Supply Chain Management:** The Group's business partners must prioritize the assessment and monitoring of their own business partners, subcontractors, or affiliates to ensure compliance with relevant laws and operational standards. Additionally, they should conduct risk assessments, evaluate performance, and implement corrective measures to address any identified issues or deficiencies.

3. Environmental Responsibility

The suppliers of Ratch Pathana and Affiliates are required to comply with all applicable environmental laws, regulations, and standards while continuously striving for improvement. Additionally, they must adhere to specific environmental requirements related to the products and services they provide. The key environmental practices are as follows:

- 3.1 Environmental Policy:** The suppliers must acknowledge and align with the Group's policies on quality, environmental protection, safety, and energy conservation. They are expected to share responsibility for safeguarding the environment by complying with all relevant laws and regulations.
- 3.2 Environmental Management Throughout the Product/Service Lifecycle:** The suppliers must commit to enhancing energy efficiency and minimizing pollutant emissions throughout the entire lifecycle of their products and services.
- 3.3 Chemical and Hazardous Waste Management:** The suppliers are required to identify, classify, and control waste and hazardous materials generated from production processes and operational activities before releasing them into the environment.
- 3.4 Water Pollution Control:** The suppliers must monitor, control, and treat wastewater from production processes, operational activities, and sanitation systems to ensure compliance with environmental standards before discharge.
- 3.5 Air Pollution and Greenhouse Gases:** The suppliers are required to classify, monitor, control, and treat the discharge of waste and by-products from combustion processes in production and operational activities before being released into the external environment. They are also committed to reducing greenhouse gases through various mechanisms.
- 3.6 Contaminated Soil and Groundwater:** The Group's partners must take measures to prevent the risk of soil and groundwater contamination during production/service processes and manage these risks appropriately.

The Company expects all suppliers to adhere to and comply with the Code of Conduct, conducting business with ethics, transparency, accountability, and against all forms of corruption. This includes promoting fair competition, safeguarding health and safety in the workplace, and fostering sustainable growth together.

Collaboration on Business Ethics and Integrity

In 2024, the company is committed to upholding ethical business practices in collaboration with its partners. This commitment is in line with Thai labor standards and anti-corruption measures. Additionally, the company has expanded its network of partners to jointly sign declarations affirming their dedication to sustainable business ethics, as outlined below:



Sustainable Supply Chain Management Plan

The Sustainable Supply Chain Management Plan aims to create sustainable energy without long-term environmental or societal impacts. It emphasizes efficient resource utilization and flexible supply chain structures adaptable to external environmental changes, minimizing risks to the business and avoiding harm to society or the environment in the long run. Environmental and social factors are considered and incorporated into decision-making and operations to ensure sustainability. The company has therefore developed the following plan and guidelines for implementation.

1. Green Procurement

Ratch Pathana has created a green procurement guide to implement in the procurement process. This is part of the supply chain management policy aimed at minimizing the impact on the environment, focusing on the selection of environmentally friendly products. The company has developed practices for suppliers to help manage environmental, social, and governance (ESG) risks, including enhancing the capabilities of suppliers, particularly in adapting to new government regulations, which may be misunderstood and cause delays in procurement. Therefore, it is important to drive the Ratch Pathana business to smooth and achieve organizational objectives.

2. Partner Selection Criteria

The company has established criteria for selecting partners based on their production capabilities, which meet customer product requirements. This includes evaluating the partner's quality standards, production capacity, adherence to various operational standards, service readiness, transportation, safety, and occupational health practices. Additionally, the supplier operations must align with social and environmental responsibility. The company utilizes questionnaires for initial assessments and conducts follow-up inspections to ensure selected suppliers have sufficient capabilities and reliability. Local suppliers are considered to maintain effective relationships and operations within the community.

3. Management of Key Suppliers Groups

The company manages key partner groups based on high-value procurement criteria and/or partners who are critical to the production process or provide limited products and services. Risk assessment and risk management processes for these partners are a priority, alongside communication and visits to their operations whenever appropriate. These visits help define strategies, set guidelines, and monitor progress in enhancing quality and collaboration with partners to foster continuous improvement in all aspects of the partnership.

Criteria for Identifying Key Suppliers and Management Strategies

The company has established criteria for identifying key Suppliers to enhance the efficiency of procurement processes and minimize risks that could impact the environment, society, and governance (ESG). Partners are categorized into three main groups:

1. Critical Tier 1 Suppliers

Suppliers with high purchase volumes, continuous orders, or those of strategic importance to the company's business.

2. Non-tier 1 Suppliers

Suppliers who provide goods or services to the critical partners, potentially impacting the company's business indirectly.

3. General Suppliers

Suppliers operating under practices and ethics that align with the company's standards and requirements.

In addition, the company emphasizes the development of non-tier 1 suppliers to enable their growth and potential elevation to critical partners in the future, through appropriate support and management strategies.

| Suppliers Group | Number of Suppliers (Companies) | Percentage (%) |
|--------------------------|---------------------------------|----------------|
| Critical Tier 1 Supplier | 7 | 2.89 |
| Non-tier 1 Suppliers | 27 | 11.16 |
| General Supplier | 208 | 85.95 |
| Total | 242 | 100 |

4. Supplier Risk Assessment

The risk analysis in procurement is conducted by evaluating suppliers who have high purchasing volumes or those whose production factors are critical and may affect the delivery of products to customers. Therefore, the company must assess the potential risks that could arise and develop contingency plans to ensure that the risk management is at a level that does not impact customers or the business. Suppliers are also required to assess the risks in their own operations, considering the potential scenarios that may occur and formulating strategies to mitigate any business disruptions.

5. Supplier Sustainability Evaluation

The company places great importance on managing its partners by establishing evaluation measures to ensure that suppliers adhere to international standards and have the production capabilities that align with the quality of products and services. The company conducts Environmental, Social, and Governance (ESG) on-site audits, alongside key supplier site visits, to ensure that business operations are in compliance with ethical principles and sustainability standards.

These measures help strengthen the relationships and collaboration between the company and the suppliers, promote sustainability development, and reduce risks associated with environmental, social, and governance factors from key and high-risk suppliers. Additionally, they reinforce the company's commitment to developing a responsible supply chain that creates value for all stakeholders in a sustainable manner.



Supplier Evaluation Results 2024

| Evaluation Criteria | Number of Partners Passing Evaluation (Out of 242 Evaluated) | | | |
|--|---|--------------|-------|----------------|
| | Existing Supplier | New Partners | Total | Percentage (%) |
| 1. Integrity/Transparency/Accountability | | | | |
| No history of corruption in any form | 151 | 91 | 242 | 100 |
| No history of work abandonment | 151 | 91 | 242 | 100 |
| 2. Environmental Management and Responsibility | | | | |
| Certified with environmental standards or complying with environmental regulations (ISO 14001/EIA) | 2 | 4 | 6 | 100 |
| Compliance with environmental laws or regulations, and processes to manage environmental impacts | 2 | 4 | 6 | 100 |
| 3. Labor and Social Responsibility | | | | |
| No use of child labor or illegal migrant labor | 151 | 91 | 242 | 100 |
| Respect for employees' human rights and no violation of basic human rights | 151 | 91 | 242 | 100 |
| Conducting business with social responsibility, with no negative impact on surrounding communities | 151 | 91 | 242 | 100 |
| 4. Conflicts of Interest | | | | |
| Executives/board members do not hold positions in competing bidding companies | 0 | 0 | 0 | 0 |

6. Supplier Development Approach

The company focuses on developing suppliers to grow together sustainably, with the following key approaches:

- **Provision of Information and Expectations:** The company communicates customer needs clearly to its partners, including product standards, quality, and management systems.
- **Knowledge Transfer:** The company supports partners by providing knowledge on production processes and technologies, to collaboratively enhance product quality.
- **Towards Green Procurement:** The company encourages partners to develop environmentally friendly production practices, aligning with the future needs of customers and consumers.
- **Business Conducted with Ethical Principles:** The company advocates for transparency and ethical business practices among partners, fostering trust and sustainable collaboration.

- **Suppliers Growth:** The company supports and develops smaller suppliers, enhancing their capabilities to expand their businesses and become key partners in the future.

These approaches form part of the strategy that strengthens relationships with suppliers, while enhancing the company's and the industry's competitive capabilities.

The company organizes activities to foster collaboration between the company and its partners, aiming to enhance the development of partners' capabilities in ensuring workplace safety, as well as compliance with laws, regulations, and safety and occupational health standards. This is in line with the company's safety and occupational health policies. The goal is to manage workplace safety and achieve zero accidents for employees, contractors, and partners working within the company's premises. The performance results for the years 2022–2024 are as follows:

| Indicator | Unit | Target | | 2022 | | 2023 | | 2024 | |
|--|-------------------------------|-----------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|---------------------------|
| | | Employees | Contractors/ Suppliers | Employees | Contractors/ Suppliers | Employees | Contractors/ Suppliers | Employees | Contractors/ Suppliers |
| Fatality Case | Cases | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lost Time Injury Frequency Rate: LTIFR | Cases per 200,000 hours | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Occupational Illness Frequency Rate: OIFR | Cases per 200,000 hours | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

SAFETY FIRST



STAKEHOLDER ENGAGEMENT

Ratch Pathana and Affiliates are committed to their responsibility and respect for the rights of various stakeholders, both internal and external, including government bodies and relevant organizations. We are equally dedicated to our responsibilities towards society, communities, and the environment, always keeping in mind the shared growth of business, mutual benefits, and long-term sustainability. These principles have been embedded in the company's business ethics to ensure that the legal rights of all stakeholders are protected and treated fairly, with equality. In cases of damage, the company and its stakeholders will collaboratively seek solutions and establish appropriate measures that benefit all parties.

The company has established clear channels for dissemination and communication, ensuring a participatory, diverse, and lifestyle-aligned approach for all stakeholders. This allows us to understand their needs and expectations, ensuring we respond effectively and accurately. We have identified eight key stakeholder groups: shareholders, competitors, creditors, customers, partners, employees, communities and society, government agencies, and relevant regulatory bodies. The processes of stakeholder identification are as follows:

- 1. Understanding the Value Chain**

Analyzing and identifying activities in the business process from upstream to downstream (raw materials, production, delivery of products, and customer service).

- 2. Stakeholder Identification**

Identifying stakeholders who can either impact or be impacted by the company's operations.




- 3. Stakeholder Prioritization**

Analyzing and prioritizing stakeholders based on their influence on the business.

- 4. Stakeholder Engagement**

Actively engaging with key stakeholders through activities and communication channels suited to their needs and expectations.



| Stakeholders | Expectations /Needs | Fulfilling Expectations | Communication Channel |
|--|---|---|---|
|  <p>Shareholders</p> <ul style="list-style-type: none"> • Majority • Minority | <ul style="list-style-type: none"> • Return on Investment • Sustainable Growth • Financial Stability • Transparent Management • Shareholders equally treatment | <ul style="list-style-type: none"> • Minority shareholders shall be given an opportunity to propose matter for inclusion in the meeting agenda and/or to nominate persons for election as Company Directors in the Annual General Meeting of Shareholders. • Shareholders are given an opportunity to submit questions relevant to the meeting prior to the shareholders' meeting. • Shareholders' meeting notices in both Thai and English are published on the company website at least 30 days prior to the shareholders' meeting day as information for shareholders and to enable the study of information prior to meetings. • Shareholders' meeting shall be facilitated. The date, time, venue and procedure must not pose an obstacle to the shareholders' attendance of the meeting. Shareholders who are not able to attend in person must have the opportunity to grant a proxy to other persons to attend the meeting and vote on their behaves. | <ul style="list-style-type: none"> • Annual Report Form 56-1 One Report • Sustainability Report • Shareholders' Meeting • Company Visit • Opportunity Day • Saha Group meet Analyst and Investor • Telephone/Facsimile • Website/E-mail |
|  <p>Competitors</p> <ul style="list-style-type: none"> • Other Power Producers • Other biomass producers | <ul style="list-style-type: none"> • Fair and legitimate competition | <ul style="list-style-type: none"> • Conflict of interest must be dealt with prudently, rationally, and information must be fully disclosed. • The Company's interests and assets shall be safeguarded as a reasonable person would safeguard his/her property. Wrongful interests, whether obtained by direct or indirect means, shall be eliminated. • The Company shall conduct its businesses within the rules of fair competition regard to business ethics and trade competition laws of various countries in which the Company operates. • The Company will not damage the reputation of its trade competitors. | <ul style="list-style-type: none"> • Activities with other power producers • Telephone • Website/E-mail |
|  <p>Creditors</p> <ul style="list-style-type: none"> • Financial Institutions | <ul style="list-style-type: none"> • Adhere with terms and conditions of loan agreements | <ul style="list-style-type: none"> • All creditor groups shall be treated equitably and fairly. • Contracts and terms will be strictly adhered to. • Operations will be administered to ensure the confidence of creditors in the Company's financial status and payment ability. • Financial statements shall be accurately and timely disclosed. • In the event of an inability to comply with a particular term, the creditor will be forthwith notified in advance in order to enable a joint solution for remedy and loss prevention | <ul style="list-style-type: none"> • Sustainability Report • Saha Group meet Analyst and Investor • Relevant Meetings • Seminars • Telephone/Facsimile • Website/E-mail |

| ผู้มีส่วนได้เสีย | ความคาดหวัง/ ความต้องการ | การตอบสนองความคาดหวัง | ช่องทางการสื่อสาร |
|---|---|---|---|
|  <p>Customers</p> <ul style="list-style-type: none"> • Distributors • End users | <ul style="list-style-type: none"> • Continuously supply reliable and high quality products • Adhere to terms and conditions of the trade agreement • Punctual service and fast response • Pay attention to customer complains • Create value-added products | <ul style="list-style-type: none"> • The Company operates the businesses of distributing electricity and steam which are safe for consumers and environmentally friendly. • The Company has operated with commitment to develop and expand its business to value creation on the biomass and agricultural residues, innovate continually to meet the demands of customers along with the disclosure of necessary information for decision-making without concealment or distortion of facts. | <ul style="list-style-type: none"> • Annual Report • Sustainability Report • Green Energy Magazine • Customer Satisfaction Survey • Customer Seminars • Customer Relations • Satisfaction Survey • Meeting with Customers/ services provide • Telephone/ Facsimile • Website/E-mail |
|  <p>Business Partners</p> <ul style="list-style-type: none"> • Supplier • Contractors • Joint venture partners | <ul style="list-style-type: none"> • Transparent purchasing procedures and fair competition • Trade negotiations based on mutual benefit • Adhering to terms and conditions of the trade agreement • Punctual payment • Treating contractors with respect in human rights and adhering to labor laws | <ul style="list-style-type: none"> • The company ensures the confidentiality of partners' information and data, strictly prohibiting any misuse for personal gain or the benefit of unauthorized parties. • Relationships and mutual understanding are fostered, knowledge is exchanged, and the development and value addition of goods and services are jointly undertaken to promote mutual growth • The company must comply with trade agreements and provide accurate information. In cases where compliance is not possible, the company should promptly negotiate with partners in advance to find solutions together and prevent potential damages. • The Company adheres to trade agreements. In the case where adherence is not possible, the customer would be notified in advance to jointly remedy and prevent any loss. | <ul style="list-style-type: none"> • Annual Report • Sustainability Report • Green Energy Magazine • Seminars • Meetings • Telephone/ Facsimile • Website/E-mail • Communication channel for customers' complaints • Business partners' suggestion • Seminar • Business partner's satisfaction survey • Relationship enhancement activities for business partners • Customer relations |
|  <p>Employees</p> | <ul style="list-style-type: none"> • Appropriate compensation and welfare • Career stability and happy workplace • Career path and potential development • Fairness and equality • Safety and Hygiene • Employees' feedback | <ul style="list-style-type: none"> • Facilitate necessary for work operations are provided and working conditions are maintained with due regard to safety and occupational health as a means of promoting and raising the quality of lives of employees. • Employees of all levels are encouraged to participate in social responsibility activities. • An organizational culture and consciousness of employees at all levels shall be promoted to encourage cooperation and responsibility for the efficient and sustainable management of the environment and utilization of resources. • Knowledge promotion and environmental training shall be extended to employees. • Environmental management system shall be promoted, from the economical use of resources to the sustainable treatment and rehabilitation, replacement, monitoring and prevention of impact on natural resources. | <ul style="list-style-type: none"> • Ratch Pathana Newsletter • Welfare Committee • Employee Survey • Family Day • Annual Seminar • Health Activities • Religious Activities • Orientations • Telephone/Facsimile • Intranet/E-mail |

| ผู้มีส่วนได้เสีย | ความคาดหวัง/ ความต้องการ | การตอบสนองความคาดหวัง | ช่องทางการสื่อสาร |
|---|---|---|--|
|  <p>Employees</p> | | <ul style="list-style-type: none"> • Fair compensation is given as suitable for the knowledge, skill, duties, responsibilities, and performance. • Appropriate welfare and benefits are given to employees, e.g., medical expenses, provident fund, etc. • The communication channels are provided for employees to communicate suggestions and complaints pertaining to work. These suggestions are considered, and remedies will be determined in the interest of all parties and in view of the creation of good working relations. | |
|  <p>Community and Society</p> <ul style="list-style-type: none"> • Nearby community/ Society • Remote community/ Society | <ul style="list-style-type: none"> • Safety and a healthy environment • Participating and being responsible for societies and communities • Supporting community activities • Creating income and enriching the economy of the communities | <ul style="list-style-type: none"> • A business which could lead to a deterioration of society shall not be undertaken and the rights of others in the community and society shall not be violated. • Consciousness of responsibilities towards the community and society as a whole shall be instilled continuously for the benefit of the Company and all levels of employees. • The guidelines shall be provided for the prevention and remedy of impact on the community and society as a consequence of the Company's operations. • The preservation of local culture and traditions shall be promoted. • Cooperation shall be entered into with various agencies for the development of communities. • Public benefit activities shall be sponsored • Incomes shall be generated and the community economy shall be promoted through employment of community members and the use of community products. • Good relations shall be fostered between the Company and the community and society on the basis of propriety, transparency and fairness | <ul style="list-style-type: none"> • Green Energy magazines • Participating in traditional community activities • Open-house activities • Community Relation activities and projects • Billboards indicating air quality • Telephone/Facsimile • Website/E-mail • Communication channel for complaints |
|  <p>Government and relevant regulatory agencies.</p> <ul style="list-style-type: none"> • Ministries, Departments and Office • Government provincial/ District Offices • Local Administration Office | <ul style="list-style-type: none"> • Adhering to law and regulations • Effective Environmental Management • Community and Social Responsibility • Collaborate to provide Information and support the sectors' activities • Legitimate and timely tax payment | <ul style="list-style-type: none"> • Knowledge and understanding of the laws governing operations are acquired and no activities are undertaken which would be inconsistent with the law. • The company conducts the business in compliance with laws, regulations, and environmental policies, considering the impacts on natural resources and the environment. Moreover, the company regularly reviews and evaluates its performance, ensuring proper procedures are followed when engaging in transactions with government officials or agencies. • Good relations are fostered between the Company and the government sectors within suitable bounds. • Relevant laws and business traditions are observed in each country or locality. | <ul style="list-style-type: none"> • Annual Report Form 56-1 One Report • Sustainability Report • Environmental Monitoring Report • Green Energy Magazine • Open-house Activity • Company visits • Report information related to regulations • Relevant meetings • Telephone/Facsimile • Web Site/E-mail |

SUSTAINABLE CUSTOMER RELATIONSHIPS

As a company committed to delivering quality services and building customer trust, we have established clear policies and measures to foster strong and sustainable relationships with our customers. Our approach emphasizes transparency, data security, and effective responsiveness to customer needs. Key initiatives include:

1. Policies and Practices for Protecting Customer Data

Our company is dedicated to safeguarding customer data with strict adherence to data protection laws, such as the Personal Data Protection Act (PDPA). Customer data is collected and used solely for necessary purposes with their consent. We implement robust encryption and access control measures to ensure data security.

2. Measures for Addressing Customer Data Breaches

In the event of a data breach, we have established a dedicated response team to assess the situation and resolve issues promptly. Key actions include:

- Notifying customers within 24 hours of detecting the breach
- Investigating and addressing technical vulnerabilities immediately
- Providing guidance and support to customers to mitigate potential impacts
- Reporting the incident to relevant authorities as required by law

3. Measures for Resolving Consumer Rights Complaints

We have clear procedures for managing complaints related to consumer rights violations, emphasizing transparency and swift resolution. Steps include:

- Thoroughly listening to customer concerns
- Conducting fact-based investigations within 7 business days
- Clearly communicating findings and resolution plans to customers
- Following up to ensure customer satisfaction with the solution



4. Channels for Receiving Customer Complaints

We offer multiple convenient channels for customers to lodge complaints, managed by our Customer Relations Department:

- Customer Service Hotline: Call Center at 038-481555, ext. 153
- Customer Relations Email
- Online complaint form available on our website: www.ratchpathana.com/en/contact-us
- Social media platforms such as Facebook and LINE
- Complaint drop-off points at our offices

5. Customer Satisfaction Development Plan

Our company has devised a customer satisfaction development plan that emphasizes improving product and service quality, employee training, and integrating new technologies for customer convenience. Key initiatives include:

- Conducting customer service training programs for employees
- Expanding real-time communication channels
- Tracking and reporting on issue resolution outcomes
- Using customer feedback to enhance products and services

6. Using Customer Satisfaction Surveys for Development Planning




We conduct annual customer satisfaction surveys to gather insights for analyzing and developing plans that align with customers' true needs. Areas receiving significant feedback are prioritized for improvement, such as enhancing product and service quality and adopting modern communication technologies for better customer interaction.

With our commitment to these policies and measures, we are confident in our ability to build long-term trust and strong relationships with our customers, leading to mutual success in the future.

Customer Communication and Engagement 2024

| Ratch Pathana Energy Plc. | | | |
|--|--|--|--|
| Methods/Forms | Customers/Stakeholders | Frequency | Key Issues/Targets |
| <ul style="list-style-type: none"> meeting | <ul style="list-style-type: none"> Management level of EGAT. Management level of customers in the industry | 1–2 times a year (depending on the issues that arise each year) | Discuss issues in the power purchase agreement, ways to work together and build good relationships with customers. |
| <ul style="list-style-type: none"> meeting | <ul style="list-style-type: none"> Operation level of EGAT. Operating level of customers in the industry | Every 3 months or as EGAT makes an appointment for a meeting | Discuss contract issues, ways to work together and build good relationships with customers. |
| Sahacogen Green Co., Ltd. | | | |
| <ul style="list-style-type: none"> meeting Engagement activities | <ul style="list-style-type: none"> Provincial Electricity Authority Customers in the industrial park | 3 times a year (depending on the issues that arise each year) | <ul style="list-style-type: none"> Review product specifications and summarize past year's performance. Follow up on performance and problem-solving actions. Activities to build customer relations such as sporting events, Visiting activities, study visits, etc. |
| SahaGreen Forest Co., Ltd. | | | |
| <ul style="list-style-type: none"> meeting Engagement activities | <ul style="list-style-type: none"> Provincial Electricity Authority | once a quarter | <ul style="list-style-type: none"> Review product specifications and summarize past year's performance. Follow up on performance and problem-solving actions. Activities to build customer relations such as sporting events, Visiting activities, study visits, etc. |
| | <ul style="list-style-type: none"> Steam Customers (Siam Forestry Co., Ltd.) | Organized no less than twice a year (subject to specific circumstances each year). | |




Customer Satisfaction Survey 2024

| company | Total number of industrial customers (persons) | Number of customers who have completed the satisfaction assessment (persons) | Number of customers who are satisfied with the target set | target (%) | average satisfaction results (%) |
|--|--|--|---|------------|----------------------------------|
|  RATCH PATHANA | 50 | 50 | 50 | 90.00 | 93.13 |
|  SAHACOGEN GREEN CO., LTD. | 2 | 2 | 2 | 95.00 | 95.10 |
|  SAHAGREEN FOREST CO., LTD. | 2 | 2 | 2 | 97.00 | 97.29 |

Performance Results on Customer Complaint Handling in 2024

| Topic | Number (Times) |
|--|----------------|
| Customer data leakage incidents | 0 |
| Consumer rights violation complaints or incidents | 0 |
| Disputes or customer complaints regarding company operations | 0 |

Customer Relationship

| Activities | Photo |
|--|--|
| Football Friendship Activities Building relationships and fostering closer connections with customers through friendly football matches held throughout the year. |   |
| Customer Training and Seminar A customer seminar was organized to provide knowledge on corporate greenhouse gas management. The session was led by Assistant Professor Dr. Warakom Wongchai, an expert in greenhouse gas management, on November 28, 2024, |   |

Customer Relationship

| Activities | Photo |
|--|---|
| <p>Customer Engagement Activities</p> <p>Organizing events to gather feedback and suggestions from customers, using the insights to improve services and enhance collaborative operations. This aims to elevate customer satisfaction and strengthen the relationship between the organization and its customers.</p> |  |
| <p>Social Activities (CSR Project)</p> <p>SGF-PEA Project for Community and Society 2024 The company, along with customers and partners, jointly organized social activities by providing educational equipment and improving the electrical system at Ban Napadang School, Pran Kratai District, Kamphaeng Phet Province.</p> |  |
| <p>Open House and Site Visit</p> <p>The company has established an Open House program that welcomes customers and stakeholders to visit and study our power generation facilities. This initiative serves as both a public relations opportunity and an educational platform to foster a deeper understanding of our business operations. The program also facilitates knowledge exchange on various relevant aspects of the energy industry.</p> |  |

ECONOMIC AND CORPORATE GOVERNANCE

Good Corporate Governance

Ratch Pathana and Affiliates emphasizes the importance of Good Corporate Governance system, runs business with transparency, honesty, responsibility as assigned, capacity of competition and fairness with realated parties in order to enhance prosperity, economical values and opulence towards shareholders in accordance with the Good Corporate Governance Principles of the Stock Exchange of Thailand and subject to the basis of sufficiency economy, that is; sufficiency, reasonability

and good immunity which requires knowledge, carefulness and discretion for planning and operating. In the same time, the company enhance all executives and employees' the awareness of morality, honest, diligence, impatience, sharing and intelligence to work as well as readiness to the changing economical, political, cultural and social situations for the benefits in a balance and sustainable way.

The Board of Directors prioritizes conducting business in adherence to good corporate governance principles, recognizing them as a fundamental foundation for sustainable business development and value creation. In addition to building investors' confidence, these principles support a competitive business with strong performance while considering long-term impacts. The company conducts the business ethically, respects rights, and upholds responsibility toward shareholders and stakeholders. Additionally, the company strives to benefit society, mitigate negative environmental impacts, and remain adaptable amid changing circumstances.

To ensure that the directors, executives, and employees are aware of and adhere to these guidelines (as disclosed in the 56-1 One Report), the framework includes:

1. The Good Corporate Governance Policy
2. The 8 Good Corporate Governance Principles
3. The Business Ethics
4. The Code of Conduct for Directors, Executive Officers, and Employees

Good Corporate Governance Policy

1. The board of directors, executives, and all employees are committed to upholding corporate governance principles, business ethics, and corporate governance standards in their operations.
2. The board of directors, executives, and all employees must fulfill their duties with responsibility, vigilance, honesty, and integrity, in compliance with laws, company regulations, and relevant announcements.
3. Ensure that the management structure of the company clearly defines the authority, duties, and responsibilities of each committee and executive.
4. Implement adequate internal control and risk management systems, including accurate and reliable accounting and financial reporting systems.
5. Ensure sufficient, reliability, and timely disclosure of important information that does not adversely affect the company's fair interests.
6. Recognize and respect the rights of shareholders and treat them equally.
7. Conduct operations with consideration for responsibilities to shareholders, stakeholders, communities, society, and the environment.



8. Strive for excellence in business operations by consistently seeking customer satisfaction through listening and self-reflection to enhance management efficiency and continuous improvement.
 9. Instill morality, ethics, and a strong conscience, treating employees fairly and consistently striving for the development and advancement of the workforce.
 10. Combat corruption, collusion, avoid infringement of intellectual property rights, respect the law, and human rights.
 11. Address conflicts of interest with discretion and reason, prioritizing the interests of the company
-



“Read more about corporate governance policies.”

Moreover, handbooks have been created and communicated to directors, management, and employees. by focusing on equitable of stakeholders. Consider rights, equality, including instilling awareness of morality, ethics, honesty, and social responsibility. as well as disclosed in the annual registration statement (Form 56-1), and on the Company’s website at www.ratchpathana.com.

The company realizes and focuses on the importance of developing Good Corporate Governance consistently. In order to become a valuable organization towards society under the balance between performance and responsibility towards stakehold-ers including society and environment for sustainable growth in a long term.

Moreover, the Executive Committee has set up several sub-committees to have employees jointly organize the internal management appropriately, efficiently, and effectively to the Company. The established committees at present are as follows:




1. The Committee of Safety, Occupational Health, and Working Environment
2. The Committee of Welfare
3. The Committee of Environment, Safety and Energy Conservation
4. The Committee of Thai Private Sector Collective Action Against Corruption (CAC)
5. The Committee of Energy Management
6. The Committee of Environment Management
7. The Committee of Human Rights
8. The Committee of Information Security and Personal Data Protection
9. The Committee of Sustainability
10. The Committee of Greenhouse Gas Management
11. The Committee of Strategic Risk Management and Business Continuity
12. The Committee of Operational Risk Management

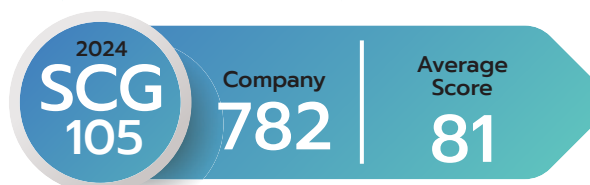
Corporate Governance Performance

The company places significant importance on establishing a good corporate governance system and is committed to continuously raising the standards of corporate governance. The company has policies in place to manage operations under changing economic and social conditions in a balanced manner, based on the principles of sufficiency economy, and in alignment with the good corporate governance principles for listed companies.

The company’s board of directors, executives, and employees at all levels place great importance on adhering to the principles of good governance and are committed to continuous development, considering all stakeholders comprehensively. This approach aims to achieve economic growth alongside balanced development of society and the environment. As a result, the company has been evaluated as follows:

Results of the Evaluation According to the Corporate Governance of Listed Companies Program (CGR CHECKLIST)

| Category | Year 2022 | Year 2023 | Year 2024 |
|---|---|--|---|
| Shareholder Rights and Equal Treatment of Shareholders | 92 | 88 | 95 |
| | 99 | | |
| Considering the role of stakeholders and developing the business for sustainability | 94 | 97 | 102 |
| Disclosure of Information and Transparency | 95 | 88 | 99 |
| Responsibilities of the Board of Directors | 84 | 90 | 94 |
| Average Score (%) | 91 | 98 | 105 |
| SCG Score |  |  |  |



The Thai Institute of Directors (IOD) has revised the assessment criteria under the Corporate Governance Rating Program for listed companies by consolidating the issue of shareholder rights and equal treatment of shareholders into a single category. Additionally, the criteria in Category 2 have been revised to cover the role of stakeholders and business development for sustainability, effective from the year 2023 onwards.

Evaluation Results According to the Annual General Meeting (AGM) Checklist Program

| Year | Overall listed companies | | | |
|------|--------------------------|---------------|---------------|---------|
| | Number of companies | Highest score | Average score | Company |
| 2567 | 808 | 100 | 94.25 | 100 |
| 2566 | 810 | 100 | 93.20 | 100 |
| 2565 | 773 | 100 | 95.46 | 100 |

Sustainability Evaluation Results (SET ESG Ratings)



In 2024, the company was assessed with a SET ESG Rating of AA by the Stock Exchange of Thailand in the Resources sector for listed companies with a market capitalization of 3,000–10,000 million baht. Additionally, the company was selected for the Sustainable Stocks list for the 7th consecutive year, reinforcing its commitment to sustainable business practices. (Note: The SET changed the name from THSI to SET ESG Ratings starting from 2023)

Risk and Crisis Management

In an era where businesses must navigate rapid changes ranging from environmental challenges and technological advancements to regulatory shifts and economic fluctuations, effective risk and crisis management have become a critical factor for sustainable and resilient growth. The company place great emphasis on proactive risk management by continuously analyzing and assessing risk factors that may impact operations. Additionally, a comprehensive Business Continuity Plan (BCP) has been developed to ensure that the company can adapt and maintain seamless operations in any situation.

Through a structured and effective risk management framework, the company is committed to strengthening its business resilience, enhancing its competitive advantage, and creating long-term value for all stakeholders.

Risk Management

Recognizing the importance of risk management, the company conducts continuous assessment, analysis, and monitoring of various risk factors to identify both business opportunities and potential threats to the energy sector. Key risks include **geopolitical risks**, which contribute to ongoing volatility and rising energy prices. Simultaneously, evolving energy policies are increasingly shifting toward renewable energy adoption to combat climate change. Moreover, advancements in energy production technologies, particularly in **solar energy, wind energy, and energy storage solutions** are reshaping the energy sector's infrastructure. Increased investments in clean energy present both opportunities and challenges for businesses.

To ensure effective risk management and resilience in a highly uncertain and volatile environment, the company has adopted the internationally recognized **Committee of Sponsoring Organizations of the Treadway Commission Enterprise Risk Management 2017 (COSO ERM)** framework. This approach enables the company to establish a robust risk framework and align its strategic direction with energy market trends while proactively managing both opportunities and risks arising from rapid industry changes.

The company implements an **enterprise-wide risk management** approach, ensuring risk governance across the organization within an acceptable risk appetite. This comprehensive **strategy covers key areas such as strategic planning, financial risk, operational risk, compliance risk, and environmental, social, and governance (ESG) risks**. The company's risk management performance is regularly reported to the **Corporate Governance and Risk Management Committee** as well as the **Board of Directors** to maintain effective oversight and ensure continuous improvement in risk governance across the organization.



Risk Management Policy and Guidelines

Ratch Pathana Energy Public Company Limited (“The Company”) committed to achieving business objectives, creating value, and stability for the best interests of the stakeholders in accordance with Good Corporate Governance. The Board of Directors’ meeting of Ratch Pathana Energy Public Company Limited No. 5/2024, held on June 26, 2024, has approved the Risk Management Policy for the Company and subsidiaries as follows.

1. To keep the balance of risk and reward from business operation in order to ensure that the operational goals and stake-holders’ expectation are achieved under risk levels accepted by the executives
2. To set strategy in line with risk levels which the Board of Directors considers as acceptable
3. To support the risk management to become a part of organizational cultures, which is necessary to operate it effectively and efficiently by all executives and employee
4. To handle risks impacting on the company’s objectives and strategy immediately and continually
5. To establish risk management guidelines for various aspects such as anti-corruption, human rights, climate change, economics, society, and corporate governance.

The Corporate Governance and Risk Management Committee is aware of the ever-changing domestic and international economic environment. Therefore, preparation must be made from risk considerations to formulating strategies for driving businesses that focus on sustainable energy development. Establish a business continuity management plan to support various factors with changes that may affect the operation of the Company by appointing a risk management working group for each business. To jointly assess and analyze risk factors that affect the organization. Including subsidiaries and various projects from both internal and external factors. And consider a risk management plan that exceeds the medium level, which is defined as an acceptable risk (Risk Appetite), prepares a Business Continuity Management Plan (BCP), as well as continuously monitoring management results and reporting progress to the Executive Committee and the Board of Directors periodically acknowledged.

To strengthen the risk management culture in the organization, the executives and the Corporate Governance and Risk Management Committee proceeded through the meeting and operational activities. They have also made participation in the risk management system as a part of the performance evaluation for all employees. The risk management system is set as a key performance indicator (KPI) of department heads and managers of all relevant departments.

Sustainability Risk Management

The Corporate Governance and Risk Management Committee recognizes the importance of managing the constantly evolving economic, social, and environmental landscape. As a result, the committee conducts assessments and analyzes the risks and opportunities arising from sustainability issues that may impact the organization, including its subsidiaries and projects, both from internal and external factors. Additionally, the committee reviews risk management plans by applying the organization’s overall risk management framework to address risks related to Environmental, Social, and Governance (ESG) aspects as follows:

Economic and Governance Risks:



Risk Factors and Opportunities

• Economic Changes

The economic landscape, along with fluctuations in oil prices, may impact the pricing of electricity and steam. These fluctuations could, in turn, affect the overall demand for energy, the cost of key raw materials, and foreign exchange rates. Additionally, shifts in government policies may influence the strategic direction of business development.

• Technological Disruption Risk

The rapid evolution of innovation and technology in the energy sector presents both opportunities and risks for businesses. If organizations fail to adapt or invest appropriately in new technologies, they may experience a loss of competitive edge. Additionally, reliance on outdated technologies or legacy systems can reduce operational efficiency, thereby impacting the financial stability of the business.

• Data security or computer system and cyber attacks

IT systems are the part that can support business operations for convenient, fast, competitive, and can create business differences. The evolution of cyber threats is becoming more sophisticated and intense. It is therefore a channel for cyber attacks on the company's collective database. Loss of sensitive or financial information Affecting the confidence and performance of the company. Therefore, a challenge to reduce the impact. The company have set the key risk management measures as follows:

- It is scheduled to replace IT equipment every 3–5 years. The replacement model must have better performance, including a security system, intrusion prevention system and backup.
- Install advanced systems and programs to protect data security from cyber threats such as Deep Discovery Inspector, WAF, Hyper Converged Infrastructure (HCI), Dell VXRail Server, Data Leak Prevention (DLP), Cyber Command Intelligent Threat Detection and Response (as disclosed in the Annual Registration Statement (Form 56–1 One Report) Topic “Risk Management”


Risk Management

- Strategic Business and Investment Planning Aligned with a Dynamic Economic Landscape
- Analyze risk factors that may impact the organization's objectives.
- Develop contingency plans to address potential changes and uncertainties.
- Continuously monitor operational performance to ensure alignment with strategic goals.


- Study innovative approaches in the energy business and assess the risks associated with investments in new technologies and innovations, including an analysis of expected returns.
- Continuously monitor information, news, and evaluate the evolving landscape of new technologies

- A policy for maintaining cybersecurity and information technology security is in place, with the establishment of task forces in each area to ensure preparedness. Training is provided to employees to raise awareness of the policy and the Cybersecurity Act B.E. 2019.
- Communications and public awareness campaigns about the legal aspects and recommendations for using information technology are carried out through screen notifications when using computers or the intranet. This ensures that all employees are informed and aware of the importance of the Cybersecurity Act B.E.2019.

Economic and Governance Risks:

| | Risk Factors and Opportunities | Risk Management |
|---|--|--|
|  | <ul style="list-style-type: none"> • Risk of Personal Data Protection The improper use and disclosure of personal data, if not handled with adequate precautions, could lead to significant losses and impact current business operations. It is essential to comply with legal regulations and any amendments to laws related to data protection. | <ul style="list-style-type: none"> • The company complies with the Personal Data Protection Act and relevant laws to ensure strict protection of personal data. Regular monitoring and audits are conducted to ensure compliance with the laws. • The company has a Data Protection Policy in place to safeguard personal data. • The company has implemented programs to obtain consent (both through forms and verbal agreements) in accordance with the Personal Data Protection Act B.E. 2562 (2019). |

Social Risk:

| | Risk Factors and Opportunities | Risk Management |
|--|---|---|
|  | <ul style="list-style-type: none"> • Human Rights The company has assessed human rights risks to prevent and mitigate the impact of such risks. The assessment of human rights risks related to labor includes the following aspects: employee working conditions, employee health and safety, discrimination and harassment against employees, freedom of association, assembly, and collective bargaining, and the use of illegal labor. Based on the risk assessment results, the company ensures compliance with labor practices and human rights standards. <p>The group has a fair and standardized employee selection system, including written tests and interviews, to evaluate knowledge, skills, and the suitability of individuals for specific job positions. The company adheres to principles of fairness and equality in human rights in accordance with its human rights policies and practices, ensuring no discrimination based on gender, religion, political rights, or any other factors.</p> <p>Furthermore, the company provides internal employees with the opportunity to apply for vacant positions if their qualifications are suitable. If no suitable internal candidates are found, the company will then proceed with external recruitment.</p> | <ol style="list-style-type: none"> 1. Compliance with Human Rights Policies and Practices: <ul style="list-style-type: none"> • The company does not engage in or support any activities that violate human rights. • The company upholds the principles of independence and respects diversity in thought, gender, race, religion, politics, and other matters. It ensures that expressions or opinions that could lead to conflict or division are avoided. • The company provides channels for communication with employees, allowing those who feel they have been treated unfairly to submit complaints. These complaints will be addressed with attention and fairness. • The company requires that all employees and contractors be at least 20 years of age, and it prohibits the employment of child labor or the use of forced labor, as well as any form of gender discrimination. 2. Training and providing information to all new employees before they start work, as well as conducting training for contractors before commencing work to ensure they understand safety, environmental, and energy-related issues, along with the company's goals, policies, regulations, and compliance requirements. 3. Establishing a welfare committee within the organization to involve employees in determining the criteria, benefits, and welfare programs that go beyond the legal requirements, demonstrating a commitment to employee care and well-being. 4. Continuously monitoring information, news, and evaluating the situation. |

Social Risk



Risk Factors and Opportunities

• Safety, Occupational Health, and WorkEnvironment

The company's operations may involve accidents or emergencies that could impact the safety of employees and workers, as well as affect the confidence of local communities and society.

• Outbreak of Emerging Diseases and Severe Infectious Diseases

Following the global outbreak of COVID-19, changes in biological factors, the environment, and human behavior, along with extreme climate change, may lead to the spread of severe infectious diseases or emerging diseases. These outbreaks can have a severe impact on public health, posing challenges to both health and economic systems. The operations of employees and workers, as well as business continuity, are significantly affected. Additionally, the outbreak of emerging diseases is characterized by unpredictability and constantly evolving patterns, making it difficult to forecast with accuracy.

• image and reputation damage

The energy business, especially electricity generation, is of interest to society, so there is a risk of being rejected or not being accepted in the business. If there is an impact on safety, occupational health, environment to the community and society acceptance and trust from the community and society. It is an important factor that affects long-term business development.

Risk Management

- Manage safety, occupational health, and environmental operations through an environmental management system (ISO 14001) and an occupational health and safety management system (ISO 45001). Regularly review hazard identification and risk assessment processes to ensure the safety and well-being of employees and contractors working within the company.
- Develop manuals and conduct drills for emergency and disaster preparedness, such as fire and chemical spill scenarios.
- Implement safety awareness programs to enhance the safety consciousness of employees and contractors working in the organization.

- Developed a Business Continuity Plan (BCP) to mitigate potential impacts on the company from disruptive events.
- Implemented measures to prevent the spread of infections, aiming to reduce severe health risks for employees and on-site workers.
- Provided training to employees to raise awareness of emerging infectious diseases and severe communicable diseases, with an emphasis on preventing and minimizing the risk of infections both at the workplace and in nearby communities.
- Continuously monitored news and updates, assessed risks, and closely monitored events.

- Establish guidelines and develop plans to prevent and reduce safety, occupational health, and environmental impacts, as well as to improve the quality of life for employees and nearby communities.
- Set up a department responsible for enhancing the organization's image by following the company's sustainability policy, monitoring performance, and carrying out community relations activities in the area to foster ongoing communication and understanding with the community.
- Foster community engagement by listening to feedback from the community, creating a communication manual, and implementing a process for handling community complaints

Environmental Risks:



Risk Factors and Opportunities

• Climate Change and Natural Disasters

Climate change and natural disasters resulting from global warming are becoming increasingly severe, leading to various risks. These risks include direct impacts, such as natural disasters and droughts, and indirect impacts, such as stricter regulations, new standards, changes in consumer behavior, and technological transformations. The Ratch Pathana and Affiliates recognizes the importance of addressing these issues and is actively working to reduce greenhouse gas emissions in a tangible way. This effort aligns with global initiatives to tackle the climate crisis as an urgent priority. The company is committed to focusing on the development and investment in renewable energy businesses.

• Environmental Laws and Regulations

The company strictly adheres to laws and regulations related to environmental impacts and safety. A designated department is responsible for monitoring and analyzing results, ensuring compliance with the evolving legal and regulatory landscape. This includes continuous tracking of changes in laws and regulations that may affect environmental impact and safety. This proactive approach allows the company to develop timely measures and contingency plans to mitigate potential environmental risks.

Risk Management

- Establish policies to address climate change and appoint a working committee for greenhouse gas management to drive the organization's greenhouse gas reduction efforts.
- Set greenhouse gas management targets aimed at achieving Carbon Neutrality by 2050, and report greenhouse gas management performance to the Sustainability Committee and the Board of Directors accordingly.
- Assess the organization's greenhouse gas emissions and removals by registering the organization's Carbon Footprint (CFO) and Product Carbon Footprint (CFP) with the Greenhouse Gas Management Organization (Public Organization) or GHGMO.
- Continuously monitor information, news, and evaluate situations to assess organizational risks.
- Communicate the importance of, and encourage participation in, greenhouse gas reduction measures to all employees and stakeholders to address climate change.

- environmental Management: Managed through an Environmental Management System (ISO 14001).
- Policy Implementation: Adhered to policies related to quality, environment, safety, and energy conservation.
- Environmental, Safety, and Occupational Health Handbook: Developed a manual to guide operations and monitor performance in environmental management, safety, and occupational health.
- Emergency Response Plan: Prepared emergency response plans, created operational manuals, conducted training sessions, and performed drills to test equipment and alarm systems in accordance with the defined schedule, ensuring strict adherence to the guidelines.
- Impact Mitigation and Environmental Monitoring: Reported the results of monitoring mitigation measures and environmental quality checks to the Office of Natural Resources and Environmental Policy and Planning, the Energy Regulatory Commission, the Department of Industrial Works, the Industrial Office, local administrative organizations, and relevant agencies.

Emerging Risk Management

Emerging risks are new, previously unforeseen risks that carry a high degree of uncertainty. Both the likelihood of occurrence and the potential impacts are often difficult to assess clearly, as these risks may arise in the future and affect the company's operations over the next 3–5 years. It is imperative for the company to prioritize and consider the impacts of rapid changes in economic, environmental, social, cultural, and technological conditions. These changes can present both challenges and opportunities for business development. Examples include technological advancements, government policies related to energy development, innovations in adapting to and reducing greenhouse gas emissions. The following are emerging risks that may affect the company's business operations:

1) Artificial Intelligence (AI) Technology

Artificial Intelligence is rapidly developing and could have significant implications for the energy sector. The integration of AI in power plant operations offers opportunities to improve efficiency, reduce costs, and assist in predictive problem-solving, as well as enhancing management and operational processes. For instance, AI could be used to monitor and control automation systems within power plants, such as analyzing data from sensors and control systems to predict machinery failures or wear-and-tear (predictive maintenance). This could reduce downtime and enhance production efficiency. However, uncertainties may arise if the AI system makes decisions based on incorrect or incomplete data, leading to erroneous decisions, which could result in system malfunctions or disruptions in power plant operations. Additionally, there is a cybersecurity risk related to the connectivity of network systems.

Furthermore, the use of AI may lead to labor shifts, reducing the need for certain job roles, but at the same time, it presents opportunities for training and developing new skills. Therefore, the consideration of AI application requires careful investment planning and risk management to ensure long-term benefits.

Risk Management

- Monitor technological changes that support and align with operations and power generation.
- Study and evaluate AI technologies that can be utilized to improve efficiency and reduce operational costs.
- Educate employees to prepare for the integration of AI in enhancing the organization's capabilities

2) Energy Production Innovation Risk

The development of energy production technologies and innovations presents the company with opportunities to enhance production efficiency or leverage them for business expansion. However, innovations that are still in the early stages of development may involve uncertainties related to technology, performance, safety, and economic viability.

Additionally, the Energy Transition Risk—stemming from the shift from fossil fuels to green energy—poses a new challenge for the power plant business across all dimensions, including increased costs, intensified competition, and regulatory uncertainties. Nevertheless, if the company can adapt by investing in clean energy, incorporating technologies to improve efficiency, and strategically implementing ESG practices, power plant businesses can survive and achieve sustainable growth in the future.

New Risk Factors That May Significantly Impact the Energy Business and Preventive Measures:

- **Energy Production Technology Innovations:** Continuously monitor technological advancements and explore the feasibility of integrating new innovations into operations. This includes overseeing production control and maintenance of power plants, as well as solar energy projects.
- **Renewable Energy Technology and Competition Affecting Costs (e.g., Solar and Wind Energy):** Monitor the prices of materials and equipment that may impact projects, and review the results of feasibility studies for new projects, as rapidly decreasing costs for solar and wind energy technologies could affect profitability and project viability.
- **Advanced Energy Storage Technologies:** Investigate developments in technology to enhance the efficiency and stability of energy production and continuous power delivery systems.

- **Energy Transition Risks Leading to Potential Stranded Assets:** The transition to cleaner energy could render fossil-fuel-based power plants at risk of becoming stranded assets if they must shut down before the end of their useful life. Continuously manage operations and monitor changes in government policies, regulations, and power development plans.
- **Need for Skilled Personnel in Clean Energy Innovations:** Develop and implement plans to recruit and train human resources that align with the business's clean energy objectives, ensuring a workforce capable of meeting future industry demands.
- **Fuel Energy and the Promotion of Renewable Energy Projects:** Support the shift towards renewable energy, including solar, wind, and biomass, by advancing and investing in these technologies, in line with the company's commitment to clean energy and sustainability.
- **In 2024, Sahacogen Green Co., Ltd. participated in a project to develop a framework for evaluating suitable technologies and investments.** The aim was to create policy recommendations for the industry to support decision-making regarding investments in bio-energy production technologies with carbon capture and storage (Bio-energy with Carbon Capture and Storage: BECCS) in Thailand



Business Continuity Plan (BCP)

The company places great emphasis on the development and management of business continuity to ensure the uninterrupted operation of the business during abnormal situations, whether caused by external or internal threats such as pandemics, cyberattacks, natural disasters, civil unrest, protests, etc. Each threat has the potential to cause harm to lives and property, as well as create obstacles to business operations. An effective and systematic approach to Business Continuity Management (BCM) enables the organization to quickly restore operations.

Corporate Governance and Risk Management Committee has outlined procedures to prepare for crisis situations, ensuring that Ratch Pathana and Affiliates management systems are capable of responding to challenges and addressing operational inefficiencies effectively and continuously. The creation of the Business Continuity Plan (BCP) ensures that it can be effectively implemented when needed.

Ratch Pathana Energy Public Company Limited and its subsidiaries recognize the importance of Business Continuity Management (BCM) to ensure that, in the event of a crisis or emergency, the organization can restore operations swiftly with minimal disruption. This approach safeguards the interests of stakeholders and ensures long-term business sustainability.

Objectives:

1. To provide a framework for managing business continuity, ensuring the protection and safety of employees' lives and the organization's assets, as well as maintaining customer service.
2. To prepare for emergencies or disasters by developing and implementing preventive and crisis management plans.
3. To establish a process for managing responses and restoring operations to normal within an appropriate timeframe.

4. To reduce the severity of the impacts caused by business disruptions and minimize significant losses to an acceptable level.

Business Continuity Management Approach:

1. Implement a business continuity management system based on recognized industry standards, with continuous improvements and development.
2. Establish a working group responsible for managing the business continuity plan, overseeing and supporting the overall continuity efforts across the organization.
3. Promote and support all levels of leadership and employees in developing awareness and understanding of business continuity management, as well as enhancing and building personnel competencies in preparing measures to ensure ongoing operations. This will lead to effective implementation.
4. Ensure that all leaders and employees at every level participate in adhering to the business continuity management policy and take actions to help the organization achieve its business continuity goals.
5. Focus on regularly reviewing and updating the business continuity management plan, conducting drills, and cultivating a corporate culture centered around business continuity.

Crisis Management and Business Continuity Management (BCM) Integration into Corporate Culture:

The company has emphasized the importance of Business Continuity Management (BCM) as part of its corporate culture, ensuring that employees at all levels understand its significance. Every individual is aware of their roles and responsibilities in maintaining business operations during times of crisis. Ratch Pathana and Affiliates has consistently developed and conducted annual Business Continuity Plan (BCP) drills, with the 2024 drill achieving an excellent evaluation score of 90%.

In 2024, subsidiaries such as Sahacogen Green Co., Ltd. and Sahagreen Forest Co., Ltd. conducted training courses on “Techniques for Developing and Practicing Business Continuity Plans (BCP).” The objective was to enhance understanding of BCM principles and ensure the accurate and effective application of BCP strategies. A total of 40 executives and employees participated in and successfully completed the training.





Standards for Managing Sustainability Risks

The company places great importance on managing sustainability risks by using international standards as a guide to its business operations, aiming to achieve a balance between economic, social, and environmental growth. This balance is the foundation for sustainable organizational development. The company adopts the practices of the Global Reporting Initiative (GRI) as a framework for disclosing sustainability information, with a focus on systematic risk management that encompasses all aspects of the business. This includes managing potential impacts on stakeholders by integrating organizational risk management with risks related to environmental, social, and governance (ESG) factors, using the COSO ERM Framework. Furthermore, the company adheres to the United Nations Sustainable Development Goals (UN SDGs), which consist of 17 main goals, as a guide to define the organization's strategies and policies.

Managing sustainability risks is a critical factor for businesses to consider in an era where climate change and the demand for sustainable energy are receiving increasing global attention. Operating a power plant with responsibility toward the environment and society not only responds to stakeholder expectations but also strengthens long-term financial stability. Therefore, the company integrates internationally recognized standards and guidelines, including the GRI Standards and the UN SDGs, into the sustainability risk management of its power plant operations.

The implementation of GRI Standards enables the company to assess and manage risks related to energy production that may have an environmental impact, such as emissions, waste management, and biodiversity preservation. From a social perspective, power plant businesses should consider respecting labor rights, community engagement, and complying with social regulations that may affect the business. Managing social risks according to GRI standards helps power plants establish positive and sustainable relationships with surrounding communities, while also ensuring responsibility for the safety and health of employees and local populations. In terms of governance, GRI Standards facilitate transparent disclosure of information related to sustainability operations and potential risks arising from internal management practices. Although the UN Sustainable Development Goals (SDGs) are not directly a risk management standard, using SDGs as a strategic framework helps power plant businesses gain a deeper understanding of sustainable development and enables more effective management of sustainability-related risks.



Anti Corruption

Ratch Pathana and Affiliates have declared its commitment to anti-corruption by establishing policies and continuously promoting a culture of good corporate governance. This initiative is directed at directors, executives, and employees to enable them to assess various risks in their operations as part of the risk management plan for all departments. The internal audit unit is responsible for evaluating and monitoring compliance. Orientation sessions, communication, and public relations efforts are conducted to reinforce adherence to the code of ethics and the anti-corruption policy.

Anti-Corruption Policy

Company has a policy to comply with anti-corruption laws, strictly prohibiting directors, executives, and employees from accepting or supporting any form of corruption, whether directly or indirectly. The company has established the following anti-corruption policy:

1. The Company does not participate in, and/or support bribery or the payment of facilitation fees in any form.
2. Giving or receiving gifts, hosting reception and hospitality, offering or accepting sponsorships, making or receiving donations, engaging in political support, and hiring government employees, the Company will operate with transparency to ensure that all actions are clear and subject to verification.
3. The Company promotes awareness and instill values of anti-corruption among the Board of Directors, executives, and employees to comply with relevant laws, announcements, and regulations by preparing documents to serve as practical guidelines.
4. Company Directors, Executives and employees are prohibited from taking any action or acting as intermediaries in demanding assets or other benefits from government or private entities as an incentive or to stimulate in unlawful acts. The prohibition includes claiming on roles and position and/or using the information to seek for personal or others' benefit.
5. The Company establishes mechanisms for transparent and accurate financial reporting, implements an effective and efficient internal control system, and ensures proper checks and balances in the exercise of authority to prevent fraud or involvement in corruption.
6. The Company has regularly reviewed the compliance with anti-corruption policy, as well as reviewing guidelines and implementation requirements to ensure alignment with changes in business, laws, and relevant regulations.
7. The Company provides communication channels to support whistleblowing on suspicious incidents, ensuring that the one submitting information (whistleblower) must be protected.

Governance and Anti-Corruption Measures

The company has been a member of the Thai Private Sector Collective Action Against Corruption (CAC) since 2014 and has continuously upheld its commitment to anti-corruption efforts. Additionally, the company has encouraged its subsidiaries, Sahacogen Green Co., Ltd. and Sahagreen Forest Co., Ltd., to sign the declaration of intent since 2018.

In 2024, the company's subsidiaries, Sahacogen Green Co., Ltd. and Sahagreen Forest Co., Ltd., received their second consecutive certification as members of the Thai Private Sector Collective Action Against Corruption (CAC). The certification is valid from December 2023 to December 2026.



The Corporate and Risk Management Committee plays a crucial role in overseeing the company's risk management processes, including the implementation of the Thai Private Sector Collective Action Against Corruption (CAC) initiative. A dedicated task force is responsible for monitoring, auditing, and executing actions in accordance with the established guidelines.

The Board of Directors is committed to fostering a transparent and ethical corporate culture by establishing an anti-corruption policy and developing an Anti-Corruption Measures Handbook. This serves as a clear guideline for directors, executives, and all employees, emphasizing the prevention and prohibition of all forms of corruption, both direct and indirect. It also includes strict measures to avoid bribery in dealings with both public and private sector entities.

The company has established operational guidelines for activities that carry a risk of corruption, with a total of 6 documents as follows:

1. Political Contributions
2. Donation
3. Support
4. Give or obtain gift and entertainment
5. Service charge and convenience fee.
6. Revolving Door

These guidelines have been distributed to directors, executives, and employees to ensure they are aware of and follow the same approach, thus raising the standard of corporate governance and enhancing the company's business credibility. The company places great importance on continuous communication and building understanding of anti-corruption measures through training for the board, executives, and employees. Additionally, information is made available on the website www.ratchpathana.com to ensure that all parties can follow the same guidelines and apply them effectively in practice.

Anti-Corruption Practices

company is committed to conducting business with integrity and transparency through strict practices to prevent fraud and corruption within the organization as follows:

- 1 Foster the right mindset, values,** and attitudes among employees to ensure they operate in compliance with laws and regulations with honesty and integrity.
- 2 Implement an effective internal control system,** including checks and balances, to prevent employees from being involved in corruption.
- 3 Prohibit directors, executives,** and employees from soliciting or accepting assets or benefits that may lead to unethical actions or neglect of duties.
- 4 Prohibit directors, executives,** and employees from offering or providing benefits to external parties to influence them to engage in illegal or unethical actions.
- 5 Ensure transparent and accurate financial reporting systems.**
- 6 Provide a secure and confidential whistleblowing channel,** appointing officers to investigate all cases reported.

Guidelines for the operation of Anti-Corruption with stakeholders:

1. Persuade customers/ business partners to join and be a partner of anti-corruption and share good practices with them.
2. Enhance awareness of employees by reviewing business ethics regularly.
3. Organize activities or campaigns relating to anti-corruption and congratulate and praise employees who conduct themselves well and honestly.
4. Provide information to communities and schools as well as support anti-corruption campaigns. Set measures and systems for internal control for transparent business operation.

Anti-Corruption Promotion and Campaign Activities in 2024

The company places great importance on fostering a transparent corporate culture and anti-corruption efforts through a variety of activities. These initiatives aim to raise awareness among employees and stakeholders about the significance of conducting business with integrity, fairness, and honesty. In 2024, the company carried out the following key projects:

1. Communication of Anti-Corruption Policy

The company has communicated its anti-corruption policy to customers and business partners through electronic channels such as email, the Intranet system, the company website, and letters regarding the refusal to accept or give gifts. Additionally, the company has expanded its network of partners to sign an acknowledgment of the declaration of intent and participate in the anti-corruption and anti-bribery policy.

2. Channels for Feedback and Complaints

The company provides opportunities for employees to share feedback, file complaints, and report issues through various channels, such as a suggestion box for the Welfare Committee, a feedback box, or the company's Intranet system. All suggestions are presented to

3. Orientation for New Employees

The company conducts an orientation on anti-corruption policies and practices for all new employees to instill ethical awareness from the very beginning of their work experience.

4. Orientation for New Employees

The company has organized an orientation on policies and guidelines for anti-corruption practices for all new employees. This aims to instill a sense of ethics and integrity from the very beginning of their employment

5. Corruption Risk Assessment

The company conducts internal control assessments for corruption risks within the Ratch Pathana and Affiliates, in collaboration with the internal audit firm, Thammaniti Co., Ltd., and the Anti-Corruption Task Force, to ensure the effectiveness of preventive measures.

6. Communication of No-Gift Policy

The company has announced a No-Gift Policy during festivals and special occasions to its subsidiaries, employees, partners, and external stakeholders to demonstrate its commitment to conducting business transparently and fairly.

The company is committed to continuing these activities to build a corporate culture based on good governance principles and to encourage employees and stakeholders to apply anti-corruption principles in practice.



Gift Policy





งดรับ งดให้ของขวัญ

RATCH PATHANA **SAHACOGEN FOREX CO., LTD.** **SAHAGREEN FOREST CO., LTD.**

บริษัท รATCH พัทธนา เอ็นเนอร์ยี่ จำกัด (มหาชน) และบริษัทย่อย ขอความร่วมมือ งดมอบของขวัญ แก่บุคลากรของบริษัท ในทุกเทศกาลและโอกาสวันใด เราขอเน้นย้ำด้วยความปรารถนาดีและในเกียรติของงาน ด้วยการเปลี่ยนของขวัญเป็นทำนุบำรุง

Ratch Pathana and Affiliates would like to request you kind cooperation not to extend gifts in any forms to Ratch Pathana and Affiliates personnel, we highly appreciate your kind understanding and generosity.

Objectives of Anti-Corruption Operations:

| Target | Performance Results | | | | |
|---|---|--|--|--|--|
| The executives and employees of Ratch Pathana and Affiliates are fully aware of the anti-corruption policy and apply it as a framework for their operations, achieving 100% compliance. | 100% The acceptance of the policy by the management and employees of Ratch Pathana and Affiliates | | | | |
| <div>16</div> <div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div> <div></div> | <div></div> <div>Knowledge assessment test</div> <div>100%</div> | | <div></div> <div>Evaluation results</div> <div>100%</div> | | |
| | complaints regarding corruption, related to corruption were found = 0 | | | | |
| | <div><div><div></div><div>2022</div><div>0</div></div><div><div></div><div>2023</div><div>0</div></div><div><div></div><div>2024</div><div>0</div></div></div> | | | | |

Whistleblowing Process for Anti-Corruption Management

The company has a Whistleblowing Policy that provides an opportunity for employees and stakeholders to report or file complaints about illegal activities, corruption, or inappropriate behavior by employees, as well as cases that may cause harm to the company. Additionally, this policy covers complaints related to violations of rights or unfair treatment of employees or stakeholders. The company has established various channels for reporting tips and has implemented systematic and fair protection measures for whistleblowers.

Channels for Reporting Whistleblowing and Complaints

Employees or stakeholders who witness or suspect that any individuals associated with the company are involved in bribery or corruption, which constitutes illegal activity or violates company policies, can report their concerns through the following channels:

1


Directly reporting orally or in writing to the designated complaint receiver

2


Suggestion box within the company

3


Website
www.ratchpathana.com or online channels

4


Mail to:
Ratch Pathana Energy Public Company Limited
636 Moo 11, Sukhaphiban 8 Road,
Nong Kham Subdistrict,
Si Racha District, Chonburi 2023

5


Email or phone contact with the relevant department

| Department | E-mail Address |
|---|---------------------------------|
| Board of Directors | directors@ratchpathana.com |
| Audit Committee | auditcommittee@ratchpathana.com |
| Corporate Governance and Risk Management Committee | cgcommittee@ratchpathana.com |
| Managing Director | MD@ratchpathana.com |
| Human Resources Management and Development Department | hrmanager@ratchpathana.com |



Whistleblower Protection and Confidentiality Measures

The company places great importance on protecting whistleblowers who report corruption and misconduct. Clear measures are in place to maintain the confidentiality and safety of whistleblowers. This is to ensure that whistleblowers can act without fear of retaliation or violation of their rights. The following measures are implemented:

- Strictly maintain the confidentiality of information related to the whistleblower.
- Non-disclosure of the whistleblower's information, unless required by law.
- Prevention of retaliation or discrimination resulting from whistleblowing.
- Use of secure channels to receive complaints and consideration of the whistleblower's privacy.

The company is committed to building trust with stakeholders in reporting information that is beneficial to the fight against corruption and fraud within the organization, ensuring transparency and fairness.



CYBERSECURITY AND PERSONAL DATA PROTECTION

The company recognizes and attaches great importance to upgrading to build stability. Safe for continuous and efficient operation. The Company has established measures to prevent problems that may be caused by various threats from the use of information technology systems in an undesirable manner that may cause damage to the Company as a whole and to prevent violations in accordance with laws and other relevant regulations. Therefore, the Company has established the following information technology security policy and personal data protection policy:



Information Technology Security Policy

The Company attaches great importance to information technology security and uses the NIST Cybersecurity Framework in the framework of the Cyber Act. The Personal Data Protection Act is designed to prevent damage that may be caused by cyber threats and operate in accordance with relevant laws and regulations. The policy guidelines and important measures are as follows:

1. Control access to systems and data

- Limit access rights to information systems to suit the duties and responsibilities of users.
- Enforce authentication before every use of the system.
- Divide network space and restrict access to critical systems.

2. System and Equipment Management

- Control access to computer equipment and networking.
- Prevent unauthorized use and strictly manage data security.
- Install security devices such as Firewall, Antivirus, NDR, PAM, DLP, etc.

3. Backup and contingency plan

- a. Prepare a backup system and an emergency system restoration plan to provide continuous service according to the 3-2-1 standard.

4. Risk Monitoring and Assessment

- a. Conduct regular audits and assessments of information risks. At least once a year.

5. Updating policies and guidelines

- a. Review and update policies to be in line with changes in the system and threats at least once a year.
- b. Establishment of a working group on the Cyber Act and the Personal Data Protection Act To supervise

6. Liability for Damage

- a. Determine the responsibilities of information technology managers and administrators in the event of damage due to policy violations or violations.

The complete information technology security policy is published through the website at www.ratchpathana.com and included in the Annual Report under the Form 56-1 One Report.

Measures to solve the problem in case the company is attacked by cyber.

In case the company is subjected to a cyberattack. The Company has taken the following steps to deal with and resolve the problem:

1. Attack Monitoring and Identification The

IT team conducts system audits to identify the cause and source of the attack using modern tools such as threat detection and unauthorized access monitoring, and external penetration testers to ensure that the core systems are managed and protected.

2. Closing vulnerabilities and fixing systems

after the source and nature of the attack have been identified. The team will work to close the vulnerability and update the vulnerable software or system to the latest version. To prevent the attack from repeating itself.

3. Data and system restoration

if an attack causes data or system damage. The team will restore data from backups, including DR-Site, Cloud systems, and restore system operations to normal.

4. Notify and communicate with stakeholders:

The IT team will notify management and stakeholders of the attack, as well as communicate the ongoing troubleshooting steps and the progress of the system restoration.

5. Review and strengthen security

after all steps of troubleshooting The company will review its processes and strengthen its security systems to prevent future attacks. Both in terms of employee training. System updates and enhancement of cyber protection measures.

This allows the company to reduce the impact of cyberattacks and continuously strengthen the security of its IT systems.

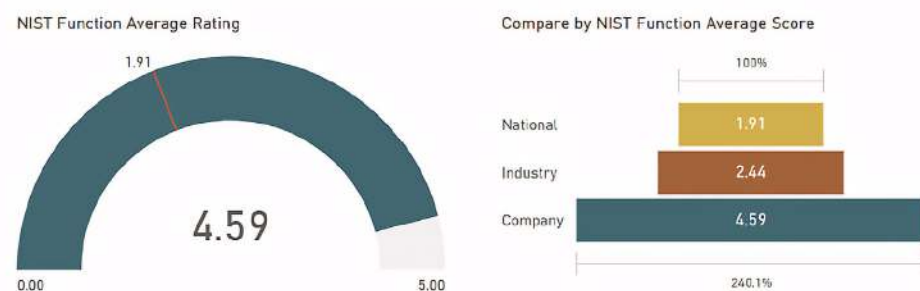
Raising Cybersecurity Standards

The company attaches great importance to cyber security. The company has participated in the “**Cyber–security Resilience Survey**” project organized by the Stock Exchange of Thailand. (SET) from 2023 to the present. Participation in this project aims to raise the Group’s cybersecurity standards and is an important milestone in the implementation of cyber security standards.

In 2024 ,the company received an evaluation score of 4.59 out of 5, which is an increase from the 2023 score of 4.25 and higher than the industry average of 2.44 points.

Organization summary

ผลจากการทำแบบสอบถามการวัดระดับความมั่นคงปลอดภัยไซเบอร์ (Cyber Readiness Questions) ของบริษัทของท่าน รวมถึงเมื่อนำผลคะแนนของบริษัทของท่านไปเปรียบเทียบกับคะแนนบริษัทในอุตสาหกรรมเดียวกันและคะแนนเฉลี่ยระดับประเทศ



หมายเหตุ 1.91 / 5 เป็นคะแนน CR Average Rating ระดับประเทศ

แบบประเมินอ้างอิงจากมาตรฐาน NIST Cybersecurity Framework (CSF) 2.0
ACFRI is Thailand's leader in providing IT security and privacy advice. ACFRI's services combine subject matter insight and actionable advice that cover the full spectrum of IT security and privacy management. © 2018 ACFRI Inc. Co., Ltd.

Personal Data Protection Policy

The Company and its subsidiaries attach importance to the protection of personal data, which is a fundamental right to privacy that must be protected in accordance with the Constitution of the Kingdom of Thailand and the Universal Declaration of Human Rights. This includes compliance with the Personal Data Protection Act B.E. 2562 (2019) and related laws to achieve the highest level of personal data protection.

1.Scope of data use

- The Company collects, uses, and discloses personal data only when it is necessary and consistent with the stated purposes. The consent of the data subject is required.

2.Personal Data Protection Measures

- Strictly define the right to access and process data.
- Sending data abroad must comply with security measures that are equivalent to or higher than that.
- Immediately notify the data owner in the event of a breach or data leak, along with a plan to remedy the damage.

3. Rights of Data Subjects The data subject has the right to access, correct, delete or withdraw consent to the processing of personal data, including the right to object to and restrict data processing.

4. Penalties and Responsibilities

- Employees who violate the policy are subject to disciplinary action and may be subject to legal prosecution.
- The Company is not responsible for any damages caused by the actions of the data subject or persons authorized by the data subject.

5. Retention Period

- Collect personal data only as necessary for the purposes and requirements of the law.

The complete version of the Personal Data Protection Policy is published through the company's website at www.ratchpathana.com and included in the Annual Report under the Form 56-1 One Report



Measures to Address Personal Data Breach Incidents

In the event of a personal data breach, the company has established a comprehensive plan and strict measures to address the issue promptly. The procedures are as follows:

1. Investigation and Situation Assessment

The company will immediately investigate the cause of the breach to assess its impact and prepare a detailed incident report.

2. Notification and Reporting

The company will promptly notify affected individuals and report the incident to relevant authorities, such as the Personal Data Protection Committee (PDPA) and other concerned agencies.

3. Remediation and Prevention

The company will take immediate action to rectify vulnerabilities that caused the breach, including improving security systems to prevent recurrence.

4. Training and Awareness

The company will conduct training sessions to enhance employees' understanding of personal data protection and compliance with security measures to prevent future breaches.

5. Monitoring and Evaluation

The company will monitor and evaluate the effectiveness of the corrective actions taken to ensure that similar incidents do not occur in the future.

Training on Cybersecurity and Use of Personal Information

In 2024, the Company organized training on cyber security and the use of personal information for employees. In collaboration with the National Cyber Security Commission (NCSA), the training was held on the topic of “IT Awareness” on October 9, 2024 at Ratch Pathana Energy Plc.



Cybersecurity and Personal Data Protection Performance In 2024

| subject | Number of times |
|--------------------------------|-----------------|
| The company was cyberattacked. | 0 |
| Personal information leakage | 0 |

INNOVATION FOR SUSTAINABILITY

Ratch Pathana Energy Public Company Limited and its subsidiaries are committed to promoting and supporting the development of innovation by integrating innovative solutions into their operational processes. This enhances efficiency, competitiveness, and sustainable growth within the organization. One of the company's key approaches is the study and development of green energy to address the evolving energy industry landscape. This initiative supports the use of clean energy, reduces environmental impacts, and promotes the efficient use of resources.

Furthermore, the company places great importance on research and development, collaborating with communities, government agencies, and academic institutions to explore methods for increasing productivity. This includes repurposing waste materials from production processes into new products that can be reused, thus promoting a circular economy and reducing waste from production processes.

Policy and Practices on Innovation Development

1. Promote and support innovation development to align with the organization's goals, create a competitive advantage, and ensure the sustainable growth of the company.
2. Establish an innovation plan, allocate resources, and set budgets to promote and support innovation development.
3. Enhance the capabilities of personnel to enable them to create and effectively apply innovations.
4. Encourage the study and development of green energy to support the transformation within the energy industry, thereby fostering long-term business growth.
5. Support collaboration with agencies and educational institutions to conduct research on innovations, and cooperate with communities to study the utilization of waste materials from production processes to create new, functional inventions.
6. Implement evaluation, monitoring, and reporting systems to ensure that innovation development activities align with the planned objectives and continuously track progress for management

Process of Developing and Promoting Organizational Culture

The company places a strong emphasis on innovation and fostering a corporate culture that supports sustainability. By integrating cutting-edge technologies into operations, the company enhances energy production efficiency, minimizes environmental impact, and generates value for society.

1. Advancement of Clean Energy Innovation

- Promoting investments in renewable energy sources such as solar power and biomass energy.
- Enhancing power plant efficiency through digital technologies, including AI, to optimize energy utilization.

2. Establishing an Innovation-Driven Corporate Culture

- Developing mechanisms for employee engagement in process improvement and innovation.
- Supporting research and development of technologies related to clean energy.
- Encouraging continuous learning and skill development through training programs focused on creativity and technological applications.



3. Sustainable and Environmentally Friendly Operations

- Implementing measures to reduce greenhouse gas emissions and pollution from production processes.
- Developing recycling initiatives and promoting efficient resource utilization.
- Strengthening collaboration with communities and stakeholders to advance clean energy development.

Innovation Development and Promotion

| Innovation Sector | Process of Developing and Promoting Organizational Culture | Benefits | Cost (Baht) |
|------------------------|--|--|-------------|
| Energy | <ul style="list-style-type: none"> • Collaboration with the National Metal and Materials Technology Center (MTEC), NSTDA: We have partnered with MTEC to develop a framework for assessing technology and investment feasibility. This initiative aims to provide policy recommendations for the industrial sector to support informed decision-making on investments in Bio-Energy with Carbon Capture and Storage (BECCS) technology in Thailand. • Research and Monitoring of Green Energy Technologies: We continuously study and track advancements in green energy technologies to ensure preparedness for future energy transitions. Key focus areas include Small Modular Reactors (SMRs), Green Hydrogen Technology, Carbon Capture and Storage (CCS), and Battery Energy Storage Systems (BESS). | <ul style="list-style-type: none"> • Supporting Sustainability Goals Preparing for the transition to clean energy to enhance competitive advantage and drive sustainable organizational growth. • Strategic Investment Planning Identifying and investing in high-potential, long-term projects such as Small Modular Reactors (SMRs), Green Hydrogen, Carbon Capture and Storage (CCS), and Battery Energy Storage Systems (BESS). • Enhancing Energy Efficiency Optimizing energy utilization, improving energy storage and management capabilities, and minimizing resource losses. | Non |
| Information Technology | <ul style="list-style-type: none"> • Implemented IT systems for engineering management, providing engineering feedback through online platforms. This allows for data recording, review, and retrieval from the system, reducing manual labor and errors in record-keeping. • Developed AMR (Automatic Meter Reading) software and a billing system to enhance operational efficiency. • Implemented systems according to the department's requirements, including ERP, MyHr, CAR OI Online, and engineering feedback systems. • Established cybersecurity systems, including PAM (Privileged Access Management), WAF (Web Application Firewall), and DLP (Data Loss Prevention), to ensure robust protection. | <ul style="list-style-type: none"> • Enhance work efficiency and effectiveness • Ensure the safety of connecting or using the company's information systems in compliance with international standards • Respond to the needs of departments seeking to modernize their information systems • Support the organization's business expansion through digital transformation | 2,996,768 |
| Other | <ul style="list-style-type: none"> • Develop a project to add value to sugarcane leaves by processing them into sugarcane briquettes. • Further develop the IREC business by promoting renewable energy power plants to register for IREC and encouraging factories with policies to reduce GHG emissions to use IREC to lower Scope 2 GHG emissions. | <ul style="list-style-type: none"> • Add value to agricultural waste products such as sugarcane leaves by processing them into compressed sugarcane leaves for sale as fuel to factories. This not only helps reduce pollution from the burning of sugarcane leaves by farmers but also increases income for farmers by allowing them to sell the leaves to factories. • Support the policy to reduce GHG emissions under Scope 2 by compensating through IREC (International Renewable Energy Certificates). | Non |

In 2024, the company undertook various initiatives and activities to promote innovation, as outlined below:

- The company collaborated with the National Metal and Materials Technology Center (MTEC), NSTDA, to develop a project focused on assessing appropriate technology and investment evaluation models. This project aims to provide policy recommendations for the industrial sector to support decision-making regarding investments in bio-energy production technologies combined with carbon capture and storage (BECCS) in Thailand.



Additionally, the company has conducted studies and continuously monitors advancements in technologies related to green energy production. This includes gathering information to proactively prepare for future shifts in the energy landscape, such as Small Modular Reactors (SMRs), Green Hydrogen Technology, Carbon Capture and Storage (CCS), and Battery Energy Storage Systems (BESS).

- The company organized the **“Energy Conservation Invention Contest”** at the Energy Day event to encourage employees to participate in the creation and development of energy-saving technologies. This initiative reinforces the company’s commitment to fostering innovation for sustainability. The event is part of a strategy to promote a culture of innovation within the organization, providing employees the opportunity to showcase their potential in developing solutions that reduce energy consumption and enhance operational efficiency sustainably.



ECONOMIC PERFORMANCE

Economic Performance of the Ratch Pathana and Affiliates from 2022–2024

The table below highlights key economic performance indicators and income distribution to stakeholders:

| Economic Performance | (Unit: Baht) | | |
|--|---------------|---------------|---------------|
| | 2022 | 2023 | 2024 |
| Sales Revenue | 5,744,064,977 | 5,048,073,819 | 3,590,843,825 |
| Other Income | 29,769,511 | 373,366,339 | 95,435,159 |
| Total Revenue | 5,773,834,488 | 5,421,440,158 | 3,686,278,984 |
| Cost of Sales | 5,803,471,947 | 4,809,196,007 | 3,449,085,407 |
| Other Expenses | 199,536,972 | 531,263,169 | 479,975,078 |
| Total Expenses | 6,003,008,919 | 5,340,459,176 | 3,929,060,485 |
| Share of Profit from Investments in Associates Using Equity Method | | 13,060,972 | 5,452,469 |
| Profit (Loss) | -229,174,431 | 94,041,954 | -237,329,032 |

Income Distribution to Stakeholders in 2024 (Baht)

| Category | 2022 | 2023 | 2024 |
|-----------------------|------------------|------------------|------------------|
| Partner | 5,254,580,029.00 | 4,295,420,345.00 | 3,544,252,945.00 |
| Employment | 119,807,432.00 | 133,691,290.00 | 126,759,003.26 |
| Local and government | 5,637,971.00 | 31,765,578.00 | 1,198,404.34 |
| Financial institution | 107,589,445.00 | 135,969,343.00 | 170,600,184.00 |
| Shareholder | 70,985,209.00 | 58,184,488.00 | 58,184,488.00 |

The revenue distribution to stakeholders



Revenue Structure for 2024

- Revenue from electricity sales: 83.49%
- Revenue from steam: 13.84%
- Revenue from biomass products: 0.08%
- Other revenue: 2.59%

(Unit: Thousand Baht)

| Product/ Service | Company | % Share- holding | 2022 | | 2023 | | 2024 | |
|--|---------|---------------------|-----------|--------|-----------|--------|-----------|--------|
| | | | Amount | % | Amount | % | Amount | % |
| Electricity from Natural Gas and Biomass | SCG | | 4,590,414 | 89.62 | 3,990,924 | 83.17 | 2,522,949 | 83.44 |
| | SGN | 99.99 | 278,064 | 66.34 | 283,376 | 72.21 | 284,360 | 68.45 |
| | SGF | 75 | 241,374 | 99.39 | 227,495 | 98.79 | 240,125 | 97.19 |
| Total | | | 5,109,852 | 88.34 | 4,501,795 | 83.04 | 3,047,434 | 82.67 |
| Solar Energy | SCG | | - | - | - | - | 24,690 | 0.82 |
| | SGN | 99.99 | - | - | - | - | 5,493 | 1.32 |
| | SGF | 75 | - | - | - | - | - | - |
| Total | | | - | - | - | - | 30,183 | 0.82 |
| Steam | SCG | | 508,744 | 9.93 | 427,049 | 8.90 | 391,721 | 12.95 |
| | SGN | 99.99 | 110,824 | 26.44 | 99,640 | 25.39 | 117,683 | 28.33 |
| | SGF | 75 | - | - | 208 | 0.09 | 900 | 0.36 |
| Total | | | 619,568 | 10.71 | 526,897 | 9.72 | 510,304 | 13.84 |
| Biomass Products | SCG | | - | - | - | - | - | - |
| | SGN | 99.99 | 3,587 | 0.86 | 2,616 | 0.67 | 2,881 | 0.69 |
| | SGF | 75 | - | - | 361 | 0.16 | 42 | 0.02 |
| Total | | | 3,587 | 0.06 | 2,977 | 0.05 | 2,923 | 0.08 |
| Other Revenue | SCG | | 23,183 | 0.45 | 380,756 | 7.93 | 84,396 | 2.79 |
| | SGN | 99.99 | 26,704 | 6.37 | 6,798 | 1.73 | 5,032 | 1.21 |
| | SGF | 75 | 1,489 | 0.61 | 2,217 | 0.96 | 6,007 | 2.43 |
| Total | | | 51,376 | 0.89 | 389,771 | 7.19 | 95,435 | 2.59 |
| Total | SCG | | 5,122,341 | 88.55 | 4,798,729 | 88.51 | 3,023,756 | 82.03 |
| | SGN | 99.99 | 419,179 | 7.25 | 392,430 | 7.24 | 415,449 | 11.27 |
| | SGF | 75 | 242,863 | 4.20 | 230,281 | 4.25 | 247,074 | 6.70 |
| Total | | | 5,784,383 | 100.00 | 5,421,440 | 100.00 | 3,686,279 | 100.00 |

Note: The company has disclosed additional details in the notes to the financial statements ending December 31, 2024, under section 16 “Operating Segments and Segment Classification.”



SOCIAL

Social Policies and Practices

The company is committed to responsible business conduct by promoting the participation of all stakeholders in community and social development, as well as respecting human rights and fair labor practices. Additionally, the company recognizes the importance of every employee's well-being and is dedicated to enhancing health, safety, and a good working environment. This includes fostering the development and retention of employees' capabilities. Furthermore, the company promotes and supports awareness among its board members, executives, and employees of their

responsibilities and fairness towards all stakeholders, in compliance with the law and principles of good corporate governance. Therefore, ethical guidelines are established for business operations and the conduct of company executives and employees to ensure awareness and adherence to the same principles.

Human Rights and Labor Practices

The company recognizes the importance of respecting human rights as a fundamental basis for conducting business. At the 5/2024 Board of Directors meeting on June 26, 2024, a resolution was passed to adopt a Human Rights Policy to ensure adherence, support, and promotion of the respect and protection of fundamental rights and human dignity of all individuals involved in the company's operations. This policy is aimed at aligning with domestic laws, international human rights principles, and best practices, including the Universal Declaration of Human Rights (UDHR), United Nations Guiding Principles on Business and Human Rights (UNGPs), Principles of the United Nations Global Compact (UNGC), and International Labor Organization (ILO) conventions.

Labor and Human Rights Practices:

1. Respect for Human Rights:

The company respects human rights principles without discrimination based on race, skin color, age, gender, sexual orientation, language, religion, education, cultural practices, social status, wealth, or residential status. This includes disabilities, illnesses, or differing political opinions, in accordance with domestic laws and international standards. The company adheres to human rights principles consistent with its policies.

2. Equal Employment Opportunities:

The company complies with laws ensuring equal treatment and fair employment practices. It provides opportunities for job applicants based on knowledge and abilities, ensuring fairness in hiring practices. The company does not discriminate based on gender, sexual orientation, age, race, ethnicity, skin color, religion, beliefs, social status, family origin, or political views. It also supports hiring individuals with disabilities or physical impairments for suitable positions. When hiring foreign workers, the company ensures equal treatment in accordance with local laws.

3. Child Labor:

The company does not engage in child labor practices, ensuring compliance with local laws and international labor standards.

4. Dignity and Respect in the Workplace:

The company promotes the dignity of its employees and workers, treating them with respect. It does not engage in or condone any form of abuse, harassment, physical or mental harm, verbal abuse, sexual harassment, coercion, or any other actions that violate the rights and dignity of workers.

5. Protecting Women Workers:

Women workers shall not be assigned to work in conditions that may endanger their health and safety. Pregnant employees shall receive adequate protection and benefits as stipulated by law.

6. Compensation and Benefits:

The company complies with labor laws regarding compensation, benefits, and other remuneration, comparable to industry standards, to meet the basic needs of workers and their families.

7. Working Hours:

The company adheres to labor laws regarding working hours, including overtime, rest days, and leave entitlements as provided by law. Overtime and work on rest days shall be voluntary and with the consent of the workers.

8. Termination of Employment:

The company complies with labor laws related to termination of employment, including criteria for severance pay and other compensations as mandated by law.

9. Health, Safety, and Environmental Practices:

The company supports a safe and healthy working environment to enable employees to work to their full potential without adverse effects on their physical and mental health. This includes establishing welfare committees and occupational health, safety, and environmental committees responsible for management and compliance with relevant labor laws and regulations.

10. Promoting Respect and Acceptance of Diversity:

The company promotes respect and acceptance of diversity within the organization, honoring the freedom of expression, participation in negotiations, involvement in various associations, and welcomes complaints or reports related to human rights violations associated with the company. This includes suggestions from employees through the company's various channels.

Human Rights Operations 2024

In 2024, the company implemented human rights policies through various projects and activities, as well as established human resources management practices that take into account related human rights aspects, as follows:

• Respect for human rights, opportunities, equality, and fairness in the workplace.

The company is committed to respecting human rights principles and values equality, fairness, and equal opportunity in the workplace. In 2024, the company drafted human resources management guidelines, which were presented to the management and officially implemented in February 2025. These guidelines align with the human rights policy regarding non-discrimination throughout the recruitment, hiring, development, performance evaluation, and employee compensation processes. The policy aims to prevent and protect employees at all levels from discrimination in any form, whether through exclusion or preferential treatment of any individual or group based on race, nationality, skin color, religion, social status, gender, gender identity, age, disability, political views, or any other factor that could lead to discrimination. This ensures that the operations and the human resource management and development practices are conducted in accordance with human rights policies, laws, and relevant regulations.



• Promoting children’s rights and preventing child labor

The company does not hire or support the hiring of child labor under the age of 18. It also places importance on promoting children’s rights through various projects and activities aimed at providing children and youth with access to better opportunities, especially in education. Examples include scholarship programs, youth painting competitions, and the “Orsomor-noi” project, among others.

Additionally, the company also offers internships to students, which helps enhance the potential of both the organization and the students. This provides multiple benefits, such as creating a new generation of skilled personnel, serving as a recruitment channel for quality employees, and offering students opportunities to gain practical experience.

Internships are part of the company’s Corporate Social Responsibility (CSR), and there is a manual for handling internship programs to ensure that the management of interns is standardized and aligned with the rights of children and youth. This is done in compliance with laws, policies, or related regulations. Interns are provided with the same care and access to benefits as regular employees. For instance, they receive allowances, accident insurance, personal protective equipment, and the right to participate in company activities. In 2024, the company is opening internship opportunities as follows:

| Company | Male | Female | Total |
|--|----------|----------|----------|
| Ratch Pathana Energy Energy Public Company Limited | 1 | 3 | 4 |
| Sahacogen Green Co., Ltd. | 1 | 0 | 1 |
| Sahagreen Forest Co., Ltd. | 0 | 0 | 0 |
| Total | 2 | 3 | 5 |



• Promotion of women’s rights and protection of female labor

The company places importance on promoting women’s rights and protecting female labor by ensuring that female employees do not engage in work that could be harmful to their health or physical well-being, as required by law. Pregnant employees are provided with a work environment that is safe for their health and well-being during pregnancy. Additionally, the company ensures that female employees are not dismissed, demoted, or have their benefits reduced due to pregnancy. The company also promotes equal opportunities for female workers to develop their knowledge and skills, and ensures that their performance is evaluated fairly, creating opportunities for career advancement without discrimination.

In addition, the company places great importance on and promotes women’s rights through various projects carried out in collaboration with communities and local authorities. These include initiatives such as promoting career opportunities for female labor groups, supporting women’s group activities in communities surrounding the power plant areas, and other similar programs aimed at empowering women and improving their lives.

• **Respect for Human Dignity**

The company places great importance on promoting the dignity and respect of its employees and workers. The company has established human resource management practices, which include provisions regarding labor, stating: “The company will not engage in or support any form of forced labor, nor will it demand or accept security payments from employees, whether upon hiring or during employment, or as a condition of employment unless exempted by law. The company also prohibits physical punishment, harassment, or any form of physical, sexual, mental, or verbal abuse as a disciplinary or control measure.”

These practices, along with other measures, reflect the company’s commitment to respecting labor rights and human dignity, in line with human rights policies such as non-discrimination and opposition to harassment. These practices are further demonstrated by the fact that, over the past three years, there have been no complaints regarding human rights violations or labor disputes.

• **Compensation and Benefits**

The company has a compensation management system based on principles of fairness and equality, ensuring internal fairness while being competitive with external businesses. It also links compensation to job performance. The company conducts job evaluations, manages performance, and uses a salary structure system to administer employee salaries.

In addition to providing benefits and entitlements as required by law, the company also considers providing additional benefits based on the appropriateness of each area. This is aimed at improving the well-being of employees, enhancing security, ensuring a suitable work environment, and boosting morale. The approach to managing compensation and benefits follows the company’s human resources management and development practices.

• **Working Hours**

The company complies with labor laws regarding employee working hours and promotes a work-life balance concept. The standard working hours are set at 8 hours per day, and overtime (OT) should only occur when necessary and with approval from management. The company also supports the use of technology to help reduce workload and unnecessary working hours. Additionally, the company has a policy that supports flexible work arrangements, such as Hybrid working, to reduce travel time and allow employees to choose their work locations freely at times. The focus is on work results rather than tracking time. All of this aims to prevent burnout and enhance employee work efficiency.



• **Promotion of Respect and Acceptance of Diversity**

The company promotes respect for and acceptance of diversity, ensuring that there is no discrimination or exclusion in any form. It recognizes and treats all employees equally, including those with diverse gender identities (LGBTQ+), from the recruitment process to the employment stage. The company also respects individuals’ freedom of expression, allowing employees to freely express their thoughts. It provides various channels through which complaints, suggestions, or reports of human rights violations related to the company can be made. These channels are accessible to all stakeholders, both internal and external. Additionally, the company ensures that whistleblower information remains confidential and anonymous.

Furthermore, the company has established a human rights task force to oversee and guide human rights issues in line with the company’s human rights policy. The task force’s responsibilities include promoting group collaboration for expressing thoughts and encouraging employee participation in human rights activities. Clear plans for meetings and missions are outlined for the task force to follow.

• Promoting Human Rights Knowledge to Employees

In 2024, the company organized a training course titled “Business and Human Rights” by specialized experts from the Department of Rights and Liberties Protection, Ministry of Justice, to promote human rights knowledge to employees in all areas. The training covered not only rights and duties related to business but also provided knowledge on managing harassment, which is related to human rights issues. A total of 123 employees, including both management and operational staff, participated in the training, representing 67% of the total workforce.



Furthermore, the company also supports its business partners and associates, as well as stakeholders, in becoming aware of the human rights policy as a guiding principle for consistent practices, as follows:

1. Conducting thorough and comprehensive Human Rights Due Diligence (HRDD) on business operations or areas where the company may have influence or support.
2. Communicating and fostering understanding among stakeholders regarding the business value chain of the company, its subsidiaries, and operations managed by the Ratch Pathana and Affiliates, as well as business partners and associates, by encouraging and supporting continuous adherence to the policy.
3. Establish channels for receiving complaints or reports of human rights violations related to the company, ensuring fairness and protection of information for individuals who file complaints or report human rights violations connected to the company, in accordance with the protective measures specified in the Whistle Blowing Policy and Personal Data Protection Act (PDPA) policy.
4. Company board members, management, and employees who fail to comply with this policy are considered disciplinary offenses punishable according to the company’s regulations. If such actions constitute legal violations, they may be subject to legal penalties as per relevant laws.
5. Remediation for Affected Parties The company has established a remediation mechanism in cases where its operations cause adverse impacts. This includes measures such as issuing apologies, providing assistance, restoring conditions, compensating, and/or other forms of redress. Additionally, the company implements disciplinary actions and preventive measures to ensure such incidents do not recur.

The company’s operations during the period from 2021 to 2023 saw no incidents related to human rights violations and no labor disputes.

| Title/Year | 2022 | 2023 | 2024 |
|-----------------------------------|------|------|------|
| Number of human rights violations | 0 | 0 | 0 |
| Number of labor disputes | 0 | 0 | 0 |

Employment

Recruitment and Selection Policy:

The company recruits personnel based on their knowledge, skills, and essential qualifications for each job type, alongside their character, to strengthen and become a vital force in driving the organization according to the appropriate manpower ratio and in line with business objectives. All applicants are treated equally throughout the recruitment, selection, and hiring processes. In recruitment, the company has a policy for developing employee potential and supporting internal job rotation. If an employee is evaluated to have good work potential, they may be assigned challenging tasks and higher responsibilities to fill vacancies or provide opportunities for advancement, thus opening up opportunities for internal staff growth. Additionally, the company recruits external personnel with knowledge and abilities to join the organization.

Guidelines for Employment Practices:

1. The company does not engage in any form of forced labor in its hiring practices.
2. The company complies with laws and regulations to ensure equal rights for all employees.
3. The company establishes a proper employment system with clear employment contracts that comply with the law and have explicit terms of employment.
4. The company's hiring practices are based on the ability to perform job duties, with work performance taking precedence over personal characteristics.
5. The company promotes the hiring of local labor and creates opportunities for career development to improve the quality of life in the local community. Race nationality age gender identity residency status disability as well as political opinions and rights, or any other matters. Additionally, the company prioritizes internal employees with suitable knowledge and qualifications for vacant positions. Only if no internal candidates are selected will the company proceed with external recruitment.

Ratch Pathana and Affiliates has a standardized and fair employee selection system. The application process includes a written exam and an interview to evaluate the candidates' competencies and organizational fit. Candidates are also required to take a health examination before starting work. The employee classifications according to company affiliates are as follow.

Number of employees for the year 2024

| Company | Male | Female | Total |
|--------------|------------|-----------|------------|
| SCG | 36 | 33 | 69 |
| SGN | 65 | 25 | 90 |
| SGF | 38 | 9 | 47 |
| Total | 139 | 67 | 206 |

| Dissection | SCG | | SGN | | SGF | | |
|--|-----------|-----------|-----------|-----------|-----------|----------|------------|
| Number of Employees by Age Group | Male | Female | Male | Female | Male | Female | Total |
| Under 30 years | 9 | 12 | 6 | 1 | 5 | 1 | 34 |
| 30–50 years | 14 | 21 | 55 | 23 | 33 | 8 | 154 |
| Over 50 years | 10 | 3 | 4 | 1 | 0 | 0 | 18 |
| Total | 33 | 36 | 65 | 25 | 38 | 9 | 206 |
| Number of Employees by Position Level | Male | Female | Male | Female | Male | Female | Total |
| Operational Level | 14 | 15 | 55 | 19 | 31 | 8 | 142 |
| Management Level | 11 | 20 | 10 | 6 | 7 | 1 | 55 |
| Senior Executive Level | 8 | 1 | 0 | 0 | 0 | 0 | 9 |
| Number of Employees by Region | Male | Female | Male | Female | Male | Female | Total |
| Bangkok | 8 | 10 | 2 | 1 | 0 | 0 | 21 |
| Northern | 6 | 1 | 61 | 24 | 3 | 1 | 96 |
| Eastern | 14 | 19 | 1 | 0 | 3 | 0 | 37 |
| Central | 3 | 1 | 1 | 0 | 30 | 8 | 43 |
| Southern | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Northeastern | 2 | 4 | 0 | 0 | 2 | 0 | 8 |
| Total | 33 | 36 | 65 | 25 | 38 | 9 | 206 |
| Number of Employees with Disabilities and/or Elderly | 5 | | 0 | | 0 | | 5 |

Promotion of Elderly Employment

In 2024, the company prioritized promoting elderly employment to create sustainable job opportunities and enhance social value. A total of five elderly employees were hired in various positions, including roles within the organizational structure, such as executive directors and advisors. These positions were offered through employment contracts tailored to each individual's experience and expertise.

To enhance the quality of life for retirees, the company launched the “Valuing Retirement” initiative, which focuses on job creation and continuous income generation. This is achieved through various company projects, including the Biomass Ash Organic Fertilizer Project, the Fast-Growing Tree Plantation for Energy Project, and the Sustainable Holy Basil Community Project for healthy and interested elderly individuals. Over the past year, the company has provided opportunities for more than 20 elderly individuals to work alongside the company.



This approach reflects the company's commitment to supporting and prioritizing elderly employment. Not only does it provide them with income and a better quality of life, but it also leverages their experience and skills for the benefit of both the organization and society as a whole.

Promotion of Employment and Support for People with Disabilities

In 2024, the company has not yet employed persons with disabilities due to the absence of suitable job vacancies and the lack of a legal requirement to do so. However, the company remains committed to promoting the rights of persons with disabilities and underprivileged groups in society. This is achieved through active participation in activities and support for initiatives aimed at creating opportunities and improving the quality of life for these groups.

Throughout the past year, the company has collaborated with CSR networks and partners to support and participate in a total of 10 projects dedicated to assisting and empowering persons with disabilities and disadvantaged individuals. Key examples of these projects include:



- **Storytelling for the Blind Project** – Supporting learning and enhancing the imagination of visually impaired individuals.
- **Donation Activities for the Underprivileged and Persons with Disabilities** – Providing assistance and sharing resources with those in need. Supporting a housing adaptation project for persons with disabilities, the elderly, patients in acute conditions, and dependent individuals in Wang Tabak Subdistrict, Phran Kratai District, Kamphaeng Phet Province, benefiting 20 individuals. Additionally, supporting volunteer activities for constructing restrooms for persons with disabilities and the elderly in Huai Nam Sai Village, benefiting eight individuals in Village No. 3, Wang Tabak Subdistrict, Phran Kratai District, Kamphaeng Phet Province.
- **Old Desk Calendar Donation Project** – Donating used desk calendars to schools for the blind to be repurposed as learning materials for visually impaired students.
- These initiatives reflect the company's commitment to fostering an inclusive society, promoting opportunities for persons with disabilities and underprivileged groups, and supporting sustainable development for the long-term benefit of society.

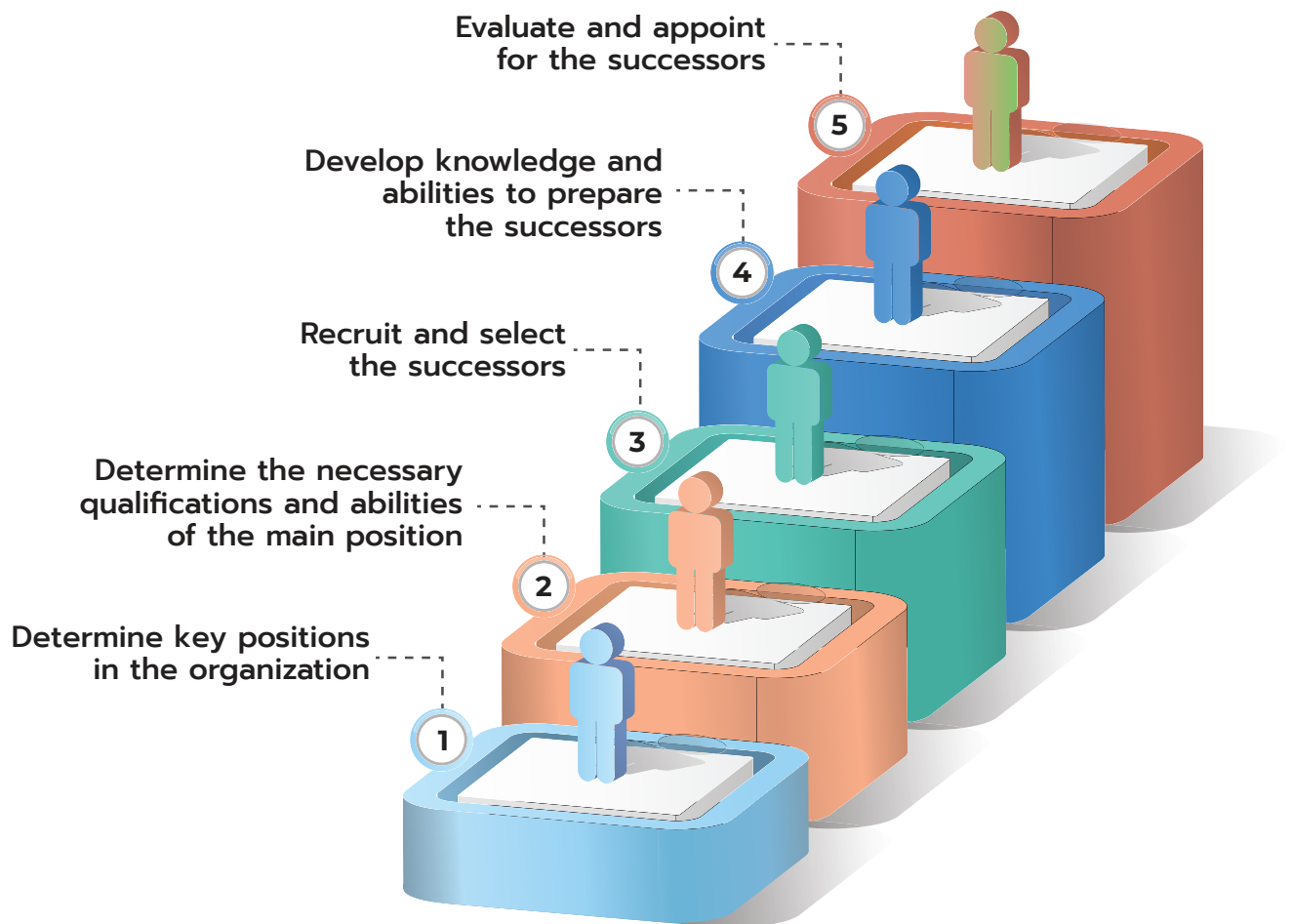
Policy and Practices Regarding Local Labor Recruitment:

The company places importance on building the grassroots economy and developing the well-being of local communities. Therefore, it has policies and practices focused on selecting and recruiting personnel that promote the hiring of local labor. This includes prioritizing the employment of individuals and contractors who are native to the company's location. This initiative aims to create job opportunities for people in the community, reduce local unemployment rates, and promote the professional development of community members to align with and meet labor market demands. The ultimate goal is to improve the quality of life for individuals in the local community

| Company | Number of employees | The number of employees from the local community | | | The employees from the local community (%) |
|---------------------|---------------------|--|--------|-------|--|
| | | Male | Female | Total | |
| SCG –Chonburi | 69 | 10 | 16 | 26 | 37.70 |
| SGN – Lamphun | 90 | 36 | 13 | 49 | 54.44 |
| SGF– Kamphaeng Phet | 47 | 28 | 7 | 35 | 74.47 |

Succession Planning Policy

It's a proactive plan and preparation for the recruitment and selection process. To replace the position "position important work" immediately, with predictions and estimates in advance caused by retirement or the uncontrolled situation. The personnel selected to prepare to be "Successors" will focus on the search for "Talented and good people" within the organization (Build) with knowledge, ability and appropriate qualifications before recruiting from outside. The company has established the process of creating a succession plan as follows:



Moreover, the management team realized the importance of creating executives in order to inherit the highest management position with the following principles.

1. Set up the descriptions of Chief Executive Relevance and organization strategy including specifying qualifications, knowledge, skills required.
2. Select secondary level executives with potential and ability.
3. Analyze qualifications individually to find strengths for further development.
4. Set up individualized development plans to promote the development and capabilities.
5. Providing secondary level executives have a chance to be close, working with senior executives – department level, both at the line level and skipping work.
6. Define potential secondary level executives as successors.
7. Prepare high-level executives to be ready to accept work in other fields if necessary.

8. Prepare personnel with specific talents to have more comprehensive management capabilities. To receive senior management jobs
9. Provide middle level management with more opportunities to manage work, both at work level and skipping work
10. Organize training for high and middle level executives to have a sense of responsibility and loyalty to the organization to get more vision.
11. Arrange training for executives in each department to have more potential Practice planning in advance and promote systematic thinking for secondary level executives.
12. Provide systematic writing plan for secondary level executives.
13. Provide a replacement for executives at some level to increase the efficiency of business management.

Managing Salaries, Wages, and Benefit

Ratch Pathana and Affiliates provides salaries and compensation to employees based on principles of justice, corresponding to their job responsibilities and competencies. The opportunity is equivalent for all genders. The compensation is also competitively adjusted in the industry to attract talented individuals to join the firm while motivating current employees to continuously improve their performances. The company also has clear KPIs for evaluating employee performance, creating mutual understanding between supervisors and employees while leading to improvement of work and human resources.

The company has an employee performance evaluation system with clear measurement criteria, utilizing Key Performance Indicators (KPIs) to assess work performance and success, as well as Competency assessments. This ensures that both supervisors and employees share a common understanding of the evaluation framework.

Additionally, employee development planning is incorporated as one of the Common KPIs for both employees and their supervisors. This approach guarantees equal opportunities for all employees to continuously develop their potential and grow alongside the organization. As a result, performance evaluations not only assess work outcomes but also drive both employee and organizational development simultaneously.

Employee compensation in 2022-2024 (million baht)



| Job category | 2022 | | 2023 | | 2024 | |
|--|--------|--------|--------|--------|--------|--------|
| | Male | Female | Male | Female | Male | Female |
| Office and administrative support | 47 | 49 | 52 | 53 | 56 | 60 |
| Operations | 83 | 11 | 79 | 8 | 80 | 9 |
| Number of Elderly Employees | 1 | 60 | 1 | 0 | 1 | 0 |
| Total overall | 131 | 60 | 132 | 61 | 137 | 69 |
| Male Employee Compensation (Million Baht) | 113.72 | | 116.51 | | 130.06 | |
| Female Employee Compensation (Million Baht) | 82.00 | | 83.50 | | 90.50 | |
| Employee compensation (million baht) | 31.70 | | 33.00 | | 39.50 | |
| Contribution to Provident Fund (million baht) | 2.90 | | 3.60 | | 4.30 | |
| Number of employees participating in the provident fund | 179.00 | | 163.00 | | 172.00 | |
| Percentage of employee's members of the provident fund (%) | 93.71 | | 84.46 | | 83.00 | |

Employees' engagement

In 2024, the company implemented activities according to the employee engagement and long-term retention plan, which included employee care through multi-dimensional welfare provisions to ensure that employees maintain a satisfactory level of organizational commitment. The implementation plan consists of the following:

1) Employee Engagement and Retention Development Plan

Ratch Pathana and Affiliates recognizes that employee potential is critically important to organizational performance. When employees are physically and mentally content with robust health, they can fully demonstrate their working capabilities. Therefore, the company has established various welfare programs and activities to create happiness in the workplace, fostering love and commitment to the organization, promoting positive relationships among colleagues, supervisors, and executives, enhancing employees' physical well-being, and encouraging productive use of leisure time. The company's approach to employee care follows the Happy Workplace principle through six pathways to happiness as follows:

| HAPPY WORKPLACE | Activity | Targets (%) | Activity Results (%) | Participation Targets (%) | Participation Results (%) |
|--|---|-------------|----------------------|---------------------------|---------------------------|
|  Happy Health | <ul style="list-style-type: none"> The Best Healthy Project encourages employees to exercise regularly, promoting good health. | 100 | 100 | 80 | 80 |
| | <ul style="list-style-type: none"> Internal sports competitions within the company group, such as football, badminton, petanque, as well as fun and exciting games, are organized to promote exercise and foster good relationships among employees and business partners. | | | 80 | 92 |
| | <ul style="list-style-type: none"> Annual health check-ups are provided, along with health benefits for employees and their families. | | | 100 | 100 |
|  Happy Heart | <ul style="list-style-type: none"> Provide welfare for visiting employees who are ill and recovering at home or in the hospital. | 100 | 100 | 80 | 100 |
| | <ul style="list-style-type: none"> Provide welfare assistance to employees during outbreaks of diseases or natural disasters, such as the COVID-19 pandemic, floods, storms, and fires, to alleviate their hardships. | | | | |
| | <ul style="list-style-type: none"> Ratch Pathana and Affiliates Sharing Project aims to distribute goods to fellow employees and disadvantaged individuals outside the organization. Examples include blood donation, the "Share for Children" project, and the donation of old desk calendars to be used as learning materials for visually impaired individuals, among others. | | | | |



| HAPPY WORKPLACE | Activity | Targets (%) | Activity Results (%) | Participation Targets (%) | Participation Results (%) |
|---------------------------------------|---|----------------|----------------------------|---------------------------------|---------------------------------|
| <div>3</div> <div>Happy Brain</div> | <ul style="list-style-type: none"> Ensure continuous development of personnel throughout the year, including both in-house training and external training (Public Training). | 80 | 93.16 | 80 | 97 |
| | <ul style="list-style-type: none"> Promote knowledge through relationship-building activities held annually and knowledge-sharing activities organized regularly every month, such as RPE Talk, etc. | 100 | 100 | 80 | 100 |
| <div>4</div> <div>Happy Soul</div> | <ul style="list-style-type: none"> Organize a Buddhist water blessing ceremony, Songkran traditional water pouring, and seek blessings from executives during the Songkran festival to preserve and pass on Thai culture. Arrange volunteer activities within religious sites on important religious occasions throughout the year, such as cleaning temple grounds, offering candles for the Buddhist Lent, and planting trees in temples, among others, to encourage employees to develop compassion, selflessness, and a spirit of giving. | 100 | 100 | 80 | 98 |
| <div>5</div> <div>Happy Family</div> | <ul style="list-style-type: none"> A housing loan welfare program with low interest rates in collaboration with the Government Housing Bank to support employees in securing housing and building a warm family. Establish a provident fund and social security fund for employees as required by law. In addition, financial assistance is provided for other employee and family needs, such as weddings, ordinations, childbirth, etc. | 100 | 100 | 100 | 100 |
| | <ul style="list-style-type: none"> The "Happy Birthday" program is based on the idea that employees are an integral part of the organization's growth. Giving small gestures of happiness, such as having colleagues wish them well on their birthdays, helps employees feel warm and connected, fostering a sense of being part of the organization's family. | | | 100 | 100 |
| | <ul style="list-style-type: none"> New Year activities are organized to create happiness and strengthen the relationship between executives and employees, as well as to show appreciation for their dedication and hard work throughout the past year. | | | 80 | 92 |
| <div>6</div> <div>Happy Society</div> | <ul style="list-style-type: none"> Ratch Pathana and Affiliates United Against Drug Abuse" project aims to raise awareness among employees about the dangers and risks of drug abuse. The company participates in the Drug Prevention and Solution Standards Program (MYS). Ratch Pathana and Affiliates Volunteer Spirit: The Seed of Goodness" project promotes the organizational culture of instilling in employees the values of being good people with a volunteer spirit for the community. Employees are encouraged to accumulate volunteer hours throughout the year, with rewards given to those who accumulate the most volunteer hours and serve as role models for others in doing good for society. | 100 | 100 | 100 | 100 |



2) Employee Welfare and Care

The company places great importance on “welfare” and additional benefits to ensure employees work happily. Therefore, it provides welfare benefits that are more than what is legally required and aligned with the changing social, economic conditions, and business needs. These include life insurance for employees, medical expenses for employees and their families, dental care, eye exam costs, shift work allowances, accommodation, travel allowances, and allowances for out-of-town work. Additionally, certificates of appreciation and gifts are given to employees celebrating their 10th and 20th work anniversaries, among other recognitions. These initiatives are designed to boost morale and encourage employees in their work, as well as to strengthen their emotional attachment to the organization. This creates motivation and commitment, leading to both direct and indirect improvements in the company’s performance and long-term sustainability.

Employee Assistance Welfare for the year 2024.

| “Welfare” | SCG | | SGN | | SGF | | Total |
|---|---------------------|----------------|---------------------|----------------|---------------------|---------------|----------------|
| | Number of Employees | Value (Baht) | Number of Employees | Value (Baht) | Number of Employees | Value (Baht) | |
| Funeral expenses for relatives. | 1 | 11,500 | 1 | 11,000 | 0 | – | 22,500 |
| Marriage | 0 | – | 0 | – | 0 | – | – |
| Child | 1 | 5,000 | 1 | 5,000 | 3 | 15,000 | 25,000 |
| Ordination (referring to the Buddhist ordination process) | 1 | 5,000 | 1 | 5,000 | 0 | – | 10,000 |
| Dental expenses | 19 | 52,735 | 22 | 44,630 | 3 | 7,100 | 104,465 |
| Eyeglasses expenses | 20 | 69,460 | 37 | 141,550 | 13 | 49,770 | 260,780 |
| Illness | 7 | 9,840 | 15 | 14,991 | 5 | 4,450 | 29,281 |
| Total | 49 | 153,535 | 77 | 222,171 | 24 | 76,320 | 452,026 |

3. Ratch Pattana Energy Public Company Limited values the balance between work and personal life.

Therefore, the company has implemented a Hybrid Working Model policy to attract and retain young employees with modern ideas. This also supports the Green and Energy Saving concept to reduce resource usage and alleviate parking space congestion. Additionally, the company creates flexibility and relaxation regarding the workplace location to accommodate the lifestyle of the new generation.

4. Providing a Good Workplace Environment

The workplace is an important factor that affects employee happiness and performance. Therefore, the company prioritizes creating a work environment that is conducive to productivity, such as maintaining a clean and safe workspace, ensuring proper ventilation, and providing adequate lighting from both natural and artificial sources. Additionally, the company promotes an organizational culture that is friendly and supportive, encourages employees to express their opinions, and listens to the views of others. The company fosters collaboration and teamwork to ensure that employees can work effectively, happily, and maintain a good quality of life within the organization.

Happiness survey results Employee Engagement

In 2024, the company conducted a survey to gather employees' opinions on their happiness and engagement with the organization, with 170 employees participating in the survey, accounting for 89.95% of the total workforce. The company set a target happiness and engagement level of 80%.

The survey results showed that employees' happiness and engagement with the organization was at 90%, which exceeds the target and represents a significant increase from 2022. These results reflect employees' satisfaction and confidence in the organization, as well as the effectiveness of the company's human resources management policies.

The information from the survey has been used to improve work processes, enhance potential development, and adjust welfare programs to align with employees' needs effectively. This ensures that all employees are happy in their work, take pride in the organization, and are ready to dedicate both their physical and mental efforts to performing their duties to the best of their abilities.

Summary Table of Employee Happiness and Engagement Assessment Results

| Year | Target(%) | Assessment results (%) |
|------|-----------|------------------------|
| 2024 | 80 | 90 |
| 2023 | – | – |
| 2022 | 80 | 87 |

Employee participation in benefits and welfare

1. Welfare Committee in the Workplace

The Welfare Committee in the workplace acts as a representative group for employees to negotiate and discuss benefits and welfare matters. This helps ensure that employees experience happiness and a sense of attachment to the organization, making them feel more connected and like a part of the organization.

The company has established a Welfare Committee in the workplace to represent employees in providing feedback and act as a liaison with the company. The committee's duties are as follows:

- 1.Collaborate with the employer to provide welfare for employees.
- 2 Offer consultations and suggestions to the employer regarding employee welfare.
- 3.Inspect, monitor, and oversee the welfare programs provided by the employer to employees.
- 4.Propose comments and suggestions for beneficial welfare programs for employees to the Labor Welfare Committee.

2. Participation in Suggesting Ideas on Benefits and Welfare in Other Forms

- The company provides opportunities for employees to participate in management through the Welfare Committee system and other systems, where employees can express their opinions and be involved in decision-making, such as monthly meetings, responding to surveys or engagement surveys, and the company's intranet system, etc.

- The company does not obstruct, interfere with, or take any action that would negatively impact employees' rights to engage in activities in line with their beliefs, including those related to race, religion, gender, gender identity, disability, nationality, union membership, political parties, etc., as long as these activities do not harm the company's operations.

• The company provides a complaint channel as a means to foster understanding and good relationships, as well as to ensure fairness in employment. By offering employees various avenues to express their opinions regarding benefits and welfare, and ensuring equal and fair treatment without discrimination or violation of human rights principles, employees will feel accepted, engaged, and a part of the organization.

Number of labor disputes.

During the years 2022–2024, there were no labor-related disputes.



Employee turnover rate for the year 2024

| Company | Number of employees | Resignation | Percentage % | New hires | Percentage % |
|---|---------------------|-------------|--------------|-----------|--------------|
| Ratch Pathana Energy Public Company Limited | 69 | 10 | 14 | 22 | 32 |
| Sahacogen Green Co.,Ltd. | 90 | 5 | 6 | 5 | 6 |
| Sahagreen Forest CO.,LTD. | 47 | 1 | 2 | 3 | 6 |
| Total | 206 | 16 | 8 | 30 | 15 |

Communicating with employees

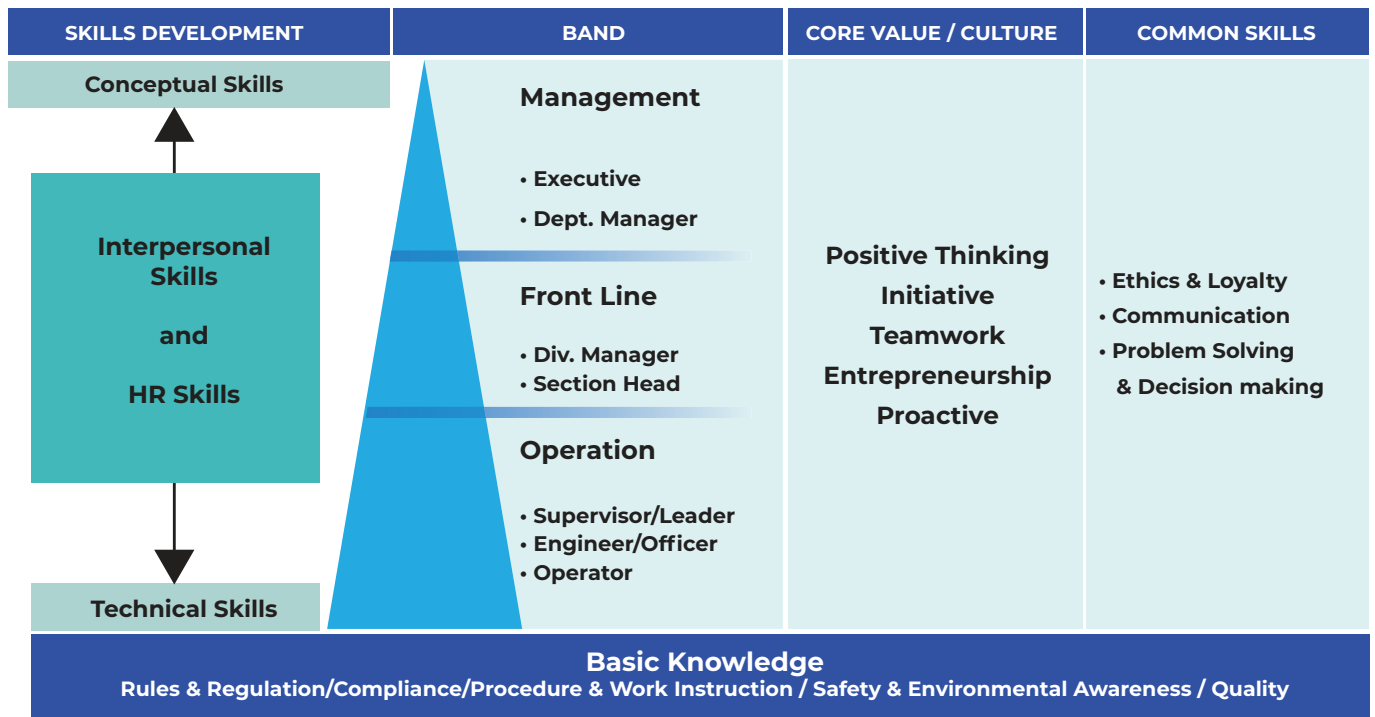
- The Company organizes a Town hall event to serve as a forum for friendly meetings between executives and employees. for executives to clarify policies The direction of the company's growth for employees to be informed. and provide opportunities for employees to ask for information, discuss and exchange opinions on various matters to bring suggestions to develop and improve management even better. As well as creating good relationships between executives and employees at all levels.
- Labor Clinic for answering questions related to human resource management and development Including listening and giving advice, problems in the workplace, Other personal issues to employees. To help find solutions for employees to be happy both at work and in their personal lives.
- Listen for employees: Ratch Pathana and Affiliates employees the opportunity to express their opinions, feedback, complaint, and problems through internal communication channels such as opinion boxes, e-mail, intranet, monthly meetings, etc., information will be presented to the executive committee for corrective action. And communicate back to employees without disclosing the information of the whistleblower.
- Free communication culture: There is clear transparency, able to discuss all matters. The company provides opportunities for all employees to express their opinions within the organization. Help create a good working environment and relationship. Monthly meetings were organized as a communication platform between executives and employees at all levels.
- Bring technology for the better communication: The Company has chosen to adopt modern and useful technology in the communication to facilitate the speed. Save cost and able to communicate thoroughly by taking into account the suitability and in accordance with the situation such as Video Conference VPN, Line, Microsoft Team and Zoom Conference etc.



Human Resource Development

Ratch Pathana put the emphasis on human resource as the key driver to success. Staff skills development is the key to develop based on the organization's goals, direction and policy





Ratch Pathana and Affiliates focuses on enhancing employees' capabilities at all levels. The development plan can be divided into 4 main groups.

- 1) Basic knowledge training** is courses that focus on providing basic information that is useful for the new employees. The examples are rules, workflow and procedure, quality management, safety standard, occupational health, and environment.
- 2) Common skills training** is useful for employees in every function. The training topics will cover ethics, morality, honesty, ability to work as a team, communication skill, and decision making skills.
- 3) Core value enhancement courses** are aiming to create corporate culture and set the guideline for code of conduct among employees. The examples of the topic covered in this group are positive thinking, innovative ideas, working as a team, entrepreneurship, and proactive work style.
- The knowledge and skills development based on job position are focus on developing knowledge Capabilities in accordance with the roles and responsibilities of each position which is divided into 3 groups as follows
 - Management :** To focus on enhancing the vision, planning view And strategic thinking in conducting business in accordance with the changing situations
 - Front Line:** To develop knowledge administrative skills and resources to achieve goals in accordance with the organization policy and create a good atmosphere for working as a team.
 - Operation :** To enhance knowledge Professional expertise and awareness of customer needs, By promoting personnel development in many ways, such as internal and external training, On-site job training by job position Assignment Coaching by supervisor.

To enable all employees to be developed under the above policy. Human resource management and development has determined the direction and clarity of continuous employee development and various processes. As follows.

1.Training

Ratch Pathana and Affiliates will formulate training and development plans for personnel. Classified by area and characteristics of different business groups. By applying the principles of Competency Management and survey the need for training (Training Road Map: TRM) which comes from analyzing and determining knowledge and competency as needed for the executives of each department.

In 2024, Ratch Pathana and Affiliates established internal and external training plans which included both classroom (Onsite) and online learning formats. These formats were adjusted to align with changing work patterns, including institutional adjustments to support greater flexibility in working and to better meet the needs of training participants.

The annual training plan consisted of 190 courses with a target implementation rate of 80% of the plan. The company successfully conducted 177 courses, representing 93.16% achievement, exceeding the target by 13.16%, as detailed below:

| | Plan (Courses) | Results (Courses) | Achievement (%) | Total Expenses (Baht) |
|-------|----------------|-------------------|-----------------|-----------------------|
| Total | 190 | 177 | 93.16 | 2,321,051 |
| SCG | 69 | 64 | 92.75 | 1,736,325 |
| SGN | 82 | 76 | 92.68 | 383,142 |
| SGF | 39 | 37 | 94.87 | 211,584 |



Training Summary of Ratch Pathana and Affiliates 2024

| Topic | SCG | SGN | SGF | Total |
|---|------------------|----------------|----------------|------------------|
| Training course type | | | | |
| Standard Training Course | 11 | 16 | 15 | 42 |
| Managerial Training Course | 8 | 11 | 2 | 21 |
| Specific Training Course | 45 | 49 | 20 | 114 |
| Total | 64 | 76 | 37 | 177 |
| Number of participants | | | | |
| Manager level | 18 | 5 | 1 | 24 |
| Department head level | 17 | 14 | 7 | 38 |
| Supervisor / Engineer level | 8 | 7 | 6 | 21 |
| Officer / staff level | 17 | 64 | 33 | 114 |
| Total | 60 | 90 | 47 | 197 |
| Hours in training | | | | |
| Manager level (per person/per year) | 74.81 | 66 | 112 | 84.27 |
| Department head level (per person/per year) | 65 | 69 | 78.14 | 70.71 |
| Supervisor / Engineer level (per person/per year) | 94.25 | 84.71 | 42.17 | 73.71 |
| Officer / staff level (per person/per year) | 71.11 | 28.95 | 52.56 | 50.87 |
| Average hour (per person/per year) | 76.29 | 62.17 | 56.3 | 69.89 |
| Training and development expenses (Baht) | 1,736,325 | 383,142 | 211,584 | 2,321,051 |

Employees
who received
development training



127



70

All employees
who attended
the training



Course



Average hours
: person : year



Summary of average training hours per employee between 2022-2024

| | 2022 | 2023 | 2024 |
|--|------------|--------------|--------------|
| The average training hours per employee (hours/person/year). | 46.30 | 49.96 | 69.89 |
| Cost of Training and development (Baht). | 860,037.00 | 1,670,647.40 | 2,321,051.00 |

1.1 In-house Training Program and the Benefits Gained from Training

1.1.1 Legally Required or Regulatory Standard Courses

1) Safety, Occupational Health, and Environmental Courses

These courses are designed to provide employees with knowledge on the use of equipment and tools, as well as skills in performing various tasks to ensure safety in the workplace. They include:

- First Aid Course
- Basic Firefighting Course
- Safety in Working with Chemicals Course
- Occupational Diseases and Environmental Health Course
- Safety in Electrical Work Course
- Proper Operation and Maintenance of Forklifts (Forklift) Course
- Safety in Working at Heights Course
- Review Course on Crane Operations
- Safe Work Procedures for Machinery (Electric Welding Machines, Gas Welding Machines) Course
- Review Course for Working in Confined Spaces
- Vehicle Safety Driving Course
- Safety in Welding and Cutting Work Course

2) Laws, Regulations, and Related Policies Course

To provide employees with knowledge and understanding, raise awareness of the importance, and ensure compliance with relevant laws and regulations, the course includes:

- Executive Safety Officer Course
- Supervisor Safety Officer Course
- Occupational Safety, Health, and Environment Committee (OSH Committee) Course
- Requirements of International Standards ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018 Course
- Information Technology Threat Awareness Course (IT Awareness)

1.1.1 Legally Required or Regulatory Standard Courses

| | |
|--|---|
| | Business and Human Rights Course |
| | Organizational Carbon Footprint and Greenhouse Gas Reduction Mechanism Course |
| | Enterprise Risk Management (ERM) Course |
| 3) Essential Basic Training Courses for Job Performance To enable employees to perform their tasks correctly, reduce errors, and achieve maximum work efficiency, the course includes: | CAR PAR OI Online Program Usage Course |
| | ERP System Usage Course (BC365) |
| | Online Engineering Review and Comments System Usage Course (EOR Online) |
| | Work Monitoring and Repair Job Analysis Using New PMII Program Course |

1.1.2 Managerial Course

| | |
|---|---|
| The training helps supervisors, department heads, and section/department managers better understand their roles and responsibilities, enabling them to apply the knowledge and techniques to improve work efficiency and effectiveness. | Task Delegation and Monitoring Techniques Course |
| | Problem-Solving and Effective Decision-Making Techniques Course |
| | Labor Law Knowledge for Managers at All Levels Course |
| | Creating a Growth Mindset to Enhance Work Efficiency Course |
| | Executive Presentation Course |
| | Being a Manager Course |
| | Rise Together Course |

1.1.3 Specific Course

| | |
|--|--|
| 1) Courses for Core Departments within the Organization To allow operational and maintenance staff to review their knowledge and understanding of how to use various equipment and tools that are essential for their work, the course includes: | Substation Equipment and Relay Protection Course |
| | Reliability Centered Maintenance Course |
| | Reliability Engineering and Application for Maintenance Course |
| | Inspection of Wear and Assessment of Boilers and Steam Piping Systems Course |
| | Professional Maintenance Management Course |
| | Basic Vibration Analysis Course |
| | Production Planning and Material Requirements Course |
| | Bearing Problem Analysis and Usage Course |

1.1.3 Specific Course

| | |
|---|---|
| | DCS Operation and Basic Steam Turbine & Generator Course |
| | Preventive Maintenance of Machinery Course |
| 2) Courses for Internal Support Departments within the Organization To provide employees with knowledge and understanding of the content related to their work and support the company's operations, including: | Techniques for Data Preparation and Presentation Course |
| | Communication and Coordination Techniques Course |
| | Warehouse Management Course |
| | Logistics Management Knowledge Course |
| | Basic Costing Related to Biomass Warehouse Management Course |
| | Cybersecurity Threat Management and Response Course |
| | Practical Consolidated Financial Statement Preparation Course |



1.2 Public Training Courses

Sending employees for external training (Public) mostly involves courses that develop specialized knowledge and skills necessary for specific professions. Individualized development is emphasized as crucial. Additionally, the company promotes employees who have completed development training to share the acquired knowledge with relevant colleagues. This is done to assess the understanding of employees and to further disseminate knowledge within the organization

2. Individual Development Plan (IDP)“

In addition to employee development through training, Ratch Pathana and Affiliates recognizes the importance of continuous development. Therefore, an Individual Development Plan (IDP) has been established as a framework to enhance employees’ knowledge, skills, and work behaviors, enabling them to achieve set goals. The IDP also aims to promote career growth by identifying and leveraging strengths while addressing weaknesses. Topics are determined collaboratively by supervisors and employees. The 70:20:10 model is utilized as a tool for personnel development, with continuous monitoring of progress throughout the development process.

In 2023, a total of 174 employees participated in the creation of Individual Development Plans (IDPs), accounting for 90% of all employees. There were a total of 303 development topics identified. Additionally, based on assessments and follow-ups, more than 60% of employees experienced clear improvements in their development.

| IDP | SCG | SGN | SGF | Total |
|---------------------|-----|-----|-----|-------|
| Number of employees | 42 | 88 | 45 | 175 |
| topics | 91 | 148 | 68 | 307 |

3.Employee Development Initiatives

3.1 Promoting Employees as Internal Knowledge Transfer Facilitators

Each department within the company has employees with specific knowledge and expertise in their respective roles and responsibilities, which is beneficial for the organization. Therefore, the company promotes employees to act as internal knowledge transfer facilitators and arranges training sessions or knowledge-sharing activities for their colleagues within the company. Regular sharing or exchange of knowledge within departments is encouraged to ensure continuous learning and development.

3.2 Fostering Organizational Core Values

Ratch Pathana has established “PITEP” as its Core Values, considering it the cornerstone for creating the organizational culture and reflecting the identity of Genes Group employees. To promote and develop personnel under the shared values of “PITEP,” the company has conceptualized a framework to ensure clarity in setting collective work goals. It emphasizes teamwork principles to drive successful outcomes aligned with predefined objectives at both team and individual levels. Furthermore, in the past year, the company has supported employees in understanding and appreciating behaviors that align with the shared Core Values of “PITEP” through various channels such as bulletin boards, the company’s intranet system, and engaging in interactive activities to encourage employee participation.

- Activities to promote shared Core Values and cultivate awareness to resist Corruption, Collusion, and Nepotism (CCN) are organized across all areas within the Genes Group. This includes providing knowledge, fostering understanding, and raising awareness about CCN issues among employees. Additionally, all

employees are required to undergo CCN knowledge assessments. This topic is also emphasized during the orientation program for new employees.

- **Core Value Man 2023** Employees are encouraged to participate in activities where they can express their opinions and perspectives that reflect their own Core Values. This includes voting for the Core Value Man among their colleagues and company representatives. The results of the Core Value Man 2023 are announced for each area during the company's New Year activities.

3.3 Knowledge Management

Long-term employee development is not just about what the organization provides, but also about promoting a mindset of continuous learning and self-development among employees. The key is to instill a love for learning and to encourage employees to prioritize self-improvement. To enhance knowledge management within the organization, the company has implemented information technology systems to increase efficiency. This includes developing a Knowledge Management Sharing system where employees from all departments share important knowledge necessary for their work, creating a central database of knowledge accessible to employees at all levels and positions. This is facilitated through the “Share & Show” project and the use of the Alfresco program, allowing easy access and retrieval of knowledge resources.



3.4 Developing Management Skills and Leadership Qualities

Translating policies into effective practices relies heavily on the management team and supervisors as the primary mechanism for reaching employees. This involves both care and setting a good example for employees. Therefore, the Genes Group aims to develop supervisors who are aware and proficient in managing personnel within their own departments. This includes task delegation, coaching, performance evaluation management, individual employee development planning along the Training Road Map, as well as providing continuous learning and development opportunities for all employees. Moreover, the company encourages opportunities for employees at all levels to learn and gain diverse work experiences by facilitating interdepartmental transfers. This approach aims to enhance employees' ability to adapt to future challenging tasks in various ways.

3.5 Developing a Workforce Ready for Change

Given the current state of business and global economy, characterized by both opportunities and challenges for sustainable growth, the Genes Group emphasizes the readiness of its employees to adapt to change. This involves fostering flexibility, adaptability, and readiness to perform tasks in any area and under any circumstances. Employees are encouraged to express their opinions appropriately, innovate, and uphold professionalism, including adhering to ethical standards in business conduct rigorously. This ensures that they are recognized as good employees and citizens within their communities, societies, and countries, regardless of their assigned roles in any region worldwide.

3.6 Creating Motivation and Inspiration for Employees

The company places great importance on creating motivation and inspiration to improve employees' performance. In addition to employees' intrinsic motivation, the motivation coming from the exemplary leadership of senior management is another driving force in enhancing employees' performance. The company has senior executives who have been working with the company for over a decade or more. They are instrumental in driving growth and success for the company. These senior executives lead by example, inspire, and mentor employees at lower levels. They also set standards for the next generation of employees to follow in the future.

To ensure that the strategies for developing a diverse workforce mentioned above are effective and yield tangible results, a framework for measuring and evaluating performance has been established. Additionally, supervisors at all levels are assigned roles in promoting and monitoring the potential of employees under their supervision. This is to ensure that supervisors at all levels within the conglomerate do not overlook the importance of continuous employee development.

1. Knowledge : This dimension focuses on measuring learning outcomes in the classroom before and after training sessions. It is managed and developed by the Human Resources department to ensure that employees have genuine understanding and knowledge of the topics covered in the training and can effectively apply them. Evaluation is done through:

- Pre-test and Post-test assessments
- Interviewing employees to gauge their understanding

2. Skill : This dimension involves measuring practical skills to ensure that employees possess sufficient skills and can perform their responsibilities effectively. It is managed by supervisors who evaluate performance through:

- Close observation and monitoring by trainers or team leaders
- Assigning tasks for real-world practice

3. Behavior : This dimension measures behavioral aspects by defining competencies, providing definitions to describe expected behaviors, and assigning scores. Evaluation is conducted directly by supervisors and involves assessing employees' demonstration of expected behaviors against predefined competencies and behaviors.



RATCH PATHANA: DRIVING SAFETY CULTURE TOWARDS SUSTAINABILITY

Quality, Safety, Occupational Health, and Environmental Management Ratch Pathana and Affiliates

recognizes the importance of safety, occupational health, and the working environment for all employees at every level, including executives, staff, contractors, and other workers. is therefore committed to ensuring a safe working environment while also taking responsibility for the safety of nearby communities. The company's safety and occupational health management encompasses strict compliance with all relevant legal requirements. establishing a safe working environment, encouraging all employees to participate in and be aware of safety practices, and fostering a safety-conscious mindset. The company also provides training and skill development to ensure employees can work efficiently, safely, and without harming the environment, while also promoting energy conservation.

Additionally, the company implements preventive measures to reduce hazards, injuries, and work-related illnesses that may occur. It focuses on mitigating moderate to high risks that could affect employees, stakeholders, and company assets, aiming to prevent losses from accidents or incidents.

Policy Compliance

1. The company strictly controls operations related to quality, environment, occupational health and safety, energy conservation, and management to ensure full compliance with all relevant laws and regulations.
2. The company is committed to protecting, preventing, reducing, and minimizing pollution, wastewater, waste, and any environmental impact arising from business operations. This includes improving efficiency, reducing energy and water consumption, and utilizing resources in the most efficient and sustainable manner throughout the supply chain, while preserving biodiversity and ecosystems, as well as adapting to climate change.
3. Risk management is implemented to reduce the occurrence of incidents, accidents, property damage, work-related injuries, or illnesses. The company aims to prevent losses that may impact employees, contractors, and stakeholders by promoting a safety culture, managing health, occupational safety, and maintaining a good working environment.
4. Encourage knowledge development and raise awareness among employees, contractors, and stakeholders regarding the importance of quality management, environmental management, occupational health and safety, as well as energy conservation in business operations.
5. Promote participation in safe and efficient operations, including consultation and consideration of the needs and expectations of employees, contractors, and stakeholders to support continuous development and improvement.
6. Provide adequate and appropriate resources to ensure the successful implementation of policies, achieving goals and objectives related to quality, environment, occupational health and safety, and energy conservation. The company also promotes the efficient and continuous use of energy and natural resources.



7. Ensure the security of public utility systems by preparing for emergency situations that may impact production and services within the supply chain. The company establishes management measures and adequate backup resources to maintain uninterrupted services, reinforcing the long-term sustainability of infrastructure systems.
8. The company conducts regular reviews of performance and objectives related to quality, environment, occupational health and safety, and energy conservation to drive continuous improvement, enhance efficiency, and effectively achieve goals. Additionally, the company ensures transparent and consistent disclosure and communication of these activities to stakeholders.

Governance Structure for Safety and Occupational Health Management



Safety Goals and Performance

The company has a dedicated department responsible for safety operations and has established the Safety, Occupational Health, and Workplace Environment Committee (KPO). This committee is responsible for driving activities and promoting employee awareness of workplace safety. The results of safety operations are regularly reported to management and the Board of Directors. For the year 2024, the company has set specific goals as key performance indicators to measure the effectiveness of its safety operations as follows:

| Goals for the Year 2024 | Safety Performance Results |
|---|---|
| • Zero fatal accidents | Zero fatal accidents |
| • Zero work-related illnesses | No occupational diseases |
| • Zero work-related injuries resulting in lost time | No work-related injuries resulting in lost time |

Workplace Safety Statistics for Employees and Contractors from 2022-2024

| Major Accident Statistics per 200,000 Working Hours | | Goals | 2022 | | | 2023 | | | 2024 | | |
|---|------------|-------|------|-----|-----|------|-----|-----|------|-----|-----|
| | | | SCG | SGN | SGF | SCG | SGN | SGF | SCG | SGN | SGF |
| Fatality Rate | Employee | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Contractor | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Work-Related Illness Frequency Rate | Employee | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Contractor | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lost Time Injury Frequency Rate | Employee | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Contractor | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Work Risk Assessment

The company conducts risk assessments for both ongoing operations or projects and newly initiated operations or projects, such as installing new machinery replacements. The risk level assessment is performed to identify potential hazards and evaluate the risks associated with various activities, work areas, and overall workplace conditions. This process involves analyzing inherent hazards at each stage of work and implementing preventive measures or solutions to mitigate workplace dangers (Job Safety Analysis). It also includes evaluating the severity and likelihood of hazards occurring. The results from assessing severity and probability are then used to determine the risk level and establish risk control measures. The goal is to reduce both the likelihood and impact of hazards from high to acceptable or minimal levels, ensuring that all workers can perform their tasks safely with the lowest possible work-related risks. All high-risk tasks, such as working at heights, confined spaces, hot work with sparks, and handling hazardous chemicals, must undergo a thorough risk assessment. Additionally, appropriate risk control measures must be defined before starting work, with continuous monitoring throughout the operation.

Risk Level Assessment for Ongoing and New Projects in 2024

| Risk Assessment | SCG | SGN | SGF |
|--|------|-----|-----|
| Number of Tasks Assessed for Risk | 1339 | 121 | 96 |
| Risk Level | | | |
| • High | 0 | 0 | 0 |
| • Medium | 273 | 0 | 39 |
| • Acceptable | 244 | 5 | 0 |
| • Minor | 822 | 116 | 57 |
| The number of measures and work procedures implemented for risk control. | 854 | 27 | 27 |

Safety Measures and Work Regulations

1. Orientation for Workers and Contractors

All workers and contractors must undergo an orientation before starting work. This ensures they understand workplace safety regulations, operational risks, risk control measures for each task, security standards, and the proper selection of PPE (Personal Protective Equipment). Safety must always be prioritized.

2. Safety Preparedness and Safety Plan Implementation

All workers must be aware of the work plan and risk control measures and strictly adhere to them. Additionally, the work area must be properly prepared to ensure safety and readiness before work begins.

3. Work Permit System

The work process begins with submitting a work request, conducting a risk assessment, implementing control measures, and identifying the type of work permit required. Compliance with the specified safety measures must be verified. Work permits include: General work permit Welding and hot work permit Confined space work permit Working at heights or scaffolding permit Chemical handling work permit, etc.

4. Worksite Inspection After Work

Workers and shift supervisors must inspect the worksite daily after completing tasks. If any unsafe conditions are found, corrective actions must be taken to ensure the area is safe and ready for use.

5. Accident Reporting

6. Incident Response and Investigation

If an accident occurs or an unsafe condition is detected that results in injury, illness, or fatality, the supervisor must immediately halt the work and report the incident to the management. A formal accident investigation will be conducted by an investigation committee, followed by the implementation of corrective and preventive measures.

7. Safety Performance Reporting

The Safety Committee holds regular meetings to monitor and review workplace safety conditions and compliance.

Safety and Occupational Health Performance for the Year 2024

Occupational Health and Safety Management System The company has undergone an occupational health and safety assessment by external agencies and has been certified according to the following international standards:



- Ratch Pathana Energy Public Company Limited places great importance on occupational health and safety. Between 2008 and 2024, the company underwent external assessments by the Management System Certification Institute (MASCI) and received certification for ISO 45001:2018. Currently, 33% of the Ratch Pathana and Affiliates companies have been certified under this standard.



- Sahacogen Green Co., Ltd. and Sahagreen Forest Co., Ltd. have undergone continuous occupational health and safety assessments by the Thailand Institute of Occupational Safety and Health (Public Organization) (T-OSH) from 2021 to 2024. They have been awarded the highest-level certification (Platinum), reflecting their commitment to excellence in safety and workplace environment management.



- The establishment of the Occupational Safety, Health, and Workplace Environment Committee (OSH Committee) allows employees to participate in proposing measures, improving safety and environmental management practices, promoting activities, and monitoring and evaluating workplace safety performance. Employee representatives appointed to the committee serve a two-year term.



- The company regularly disseminates knowledge, news, and information on safety, occupational health, and the environment to employees, workers, and personnel through various channels, including monthly newsletters, the intranet, bulletin boards, email, and the company's public announcement system.



- Safety Talk: A knowledge-sharing activity where employees exchange information on workplace and daily life safety. These sessions are conducted in both online and onsite formats to ensure accessibility and effectiveness.

- Safety Day & Safety Week: Annual events promoting workplace safety and environmental awareness, encouraging employees at all levels to actively participate in fostering a safe working environment.

- Big Cleaning Day: The company implements the "5S" methodology to organize and maintain workplace cleanliness on a weekly basis. Additionally, an annual Big Cleaning Day is held to reinforce the importance of cleanliness and workplace safety among employees.

- Personnel Development and Training on Safety, Occupational Health, and Environment:

- The company provides training programs to equip employees with the knowledge and skills to safely operate equipment and tools in the workplace. Training courses include Occupational Disease Awareness, Basic First Aid & CPR, Crane Operation Safety, Basic Firefighting, Emergency Response for Chemical Spills, Confined Space Safety, and Working at Heights Safety.

- **Safety Awareness Initiatives for Employees and Contractors:**
- The company organizes activities to promote safety awareness, such as hazard reporting in the workplace, a workplace safety drawing contest to encourage employee participation in developing safe work practices, alcohol level testing before entering the worksite, safety training sessions for contractors, and a Safety Smart Award for outstanding employees in workplace safety.
- **Employee Health Check-ups Based on Risk Factors:** Employees undergo health examinations both before starting their job and annually to monitor health risks associated with their work environment.
- **Emergency Fire and Evacuation Drills:** Conducted twice a year to ensure preparedness for fire emergencies.
- **Emergency Drills for Chemical and Hazardous Waste Spills:** Conducted once a year, along with drills for transformer explosions and boiler explosions.
- **Installation of Environmental Monitoring Equipment:** Annual installation of environmental quality monitoring devices in the workplace and surrounding communities to assess and report environmental conditions to relevant authorities twice a year.



Occupational Health, Safety, and Environment Projects for 2024

1. Zero Accident

This campaign promotes employees' commitment to preventing workplace accidents by reducing work-related injury statistics to zero. It is achieved through continuous planning and management of safety, occupational health, and environmental conditions at work.

2. Project to Foster Safety Awareness and the Importance of Occupational Diseases

This initiative aims to instill safety awareness in all employees and contractors, focusing on accident prevention and awareness of occupational diseases. It includes campaigns to encourage employees and contractors to participate in building a safety culture at work.

3. "Suggestions on Safety, Environment, and Energy Conservation" Project

The project aims to identify safety risks to improve workplace safety by involving employees and contractors in identifying hazards caused by unsafe conditions or improper work practices. In 2024, a total of 16 suggestions were received, which the company used to improve work safety and promote better employee health.

4. Hearing Conservation Program

This activity focuses on reducing exposure to loud noises during work and preventing hearing loss. Hearing conservation measures are implemented when workers are exposed to an average noise level of 85 decibels or higher over an 8-hour working period in any work area.

5. The Best Healthy Project

This activity promotes well-being and safety in the workplace, especially during outbreaks such as the COVID-19 pandemic. It includes preventive measures and guidelines for dealing with infectious disease outbreaks. The project also promotes employee health by tracking energy expenditure throughout the year. In 2024, 57.14% of employees participated, exceeding the target of 40%.

Emergency Response Plan 2024

| Emergency Situation | RPE | SGN | SGF |
|----------------------------|-----------|-----------|----------|
| Fire and Explosion Level 1 | 1 | 0 | 0 |
| Fire and Explosion Level 2 | 1 | 6 | 2 |
| Fire and Explosion Level 3 | 0 | 0 | 0 |
| Gas Leak | 2 | 0 | 0 |
| Oil Spill | 2 | 3 | 0 |
| Chemical Spill | 2 | 1 | 1 |
| Waste/Sludge Handling | 1 | 1 | 1 |
| Boiler Explosion | 2 | 1 | 0 |
| Transformer Explosion | 2 | 3 | 0 |
| Total (Incidents) | 13 | 15 | 4 |

Safety Training for Workers in 2024

Ratch Pathana Energy Public Company Limited

| Order | Training Topics | Number of Employees Trained (People) |
|-------|--|--------------------------------------|
| 1 | Employee Orientation Before Starting Work | 22 |
| 2 | Basic Firefighting | 11 |
| 3 | Occupational Safety, Health, and Environmental Committee (OSH Committee) | 1 |
| 4 | Occupational Safety Officer – Supervisor Level | 7 |
| 5 | Occupational Safety Officer – Management Level | 3 |
| 6 | Electrical Safety in the Workplace | 3 |
| 7 | Basic First Aid and CPR | 18 |
| 8 | Review of Crane Operations | 2 |
| 9 | Occupational and Environmental Diseases | 52 |
| 10 | Knowledge of Electrical and Steam Distribution Systems | 3 |



Sahacogen Green Co.,Ltd.

| Order | Training Topics | Number of Employees Trained (People) |
|-------|--|--------------------------------------|
| 1 | Employee Orientation Before Starting Work | 5 |
| 2 | Occupational Safety, Health, and Environment for General Employees and New Hires | 5 |
| 3 | Crane Operator Review | 4 |
| 4 | Occupational Safety Officer – Supervisor Level | 3 |
| 5 | Basic Operations and Safety with Industrial Chemicals | 19 |
| 6 | Basic First Aid and CPR | 40 |
| 7 | Occupational and Environmental Diseases | 90 |
| 8 | Use of Personal Protective Equipment (PPE) | 5 |
| 9 | Safe Vehicle Operation: Forklift | 24 |
| 10 | Confined Space Work Review | 19 |

Sahagreen Forest Co.,Ltd.

| Order | Training Topics | Number of Employees Trained (People) |
|-------|--|--------------------------------------|
| 1 | Employee Orientation Before Starting Work | 3 |
| 2 | Occupational Safety, Health, and Environment for General Employees and New Hires | 3 |
| 3 | Safety in Confined Space Work | 1 |
| 4 | Basic Firefighting | 23 |
| 5 | Boiler Safety & Best Practices for Annual Boiler Inspection | 8 |
| 6 | Chemical Safety: Water/Steam Quality Analysis in Power Plant Systems and Chemical Control in Power Plant Water Systems | 18 |
| 7 | Welding Safety (Online) | 1 |
| 8 | Safety in Working at Heights | 30 |
| 9 | Crane Operation: Signalman, Rigger, and Crane Operator for Overhead Cranes, Tower Cranes, and Other Fixed Cranes | 2 |
| 10 | Crane Safety Review (4 Roles) | 14 |
| 11 | Occupational and Environmental Diseases | 30 |
| 12 | Boiler Operator or Fired Heater Operator | 1 |
| 13 | IT Threat Awareness | 32 |
| 14 | Basic First Aid and CPR | 34 |

In 2024, the company provided training to 197 employees, with 186 employees completing training in safety and occupational health, representing 94.41%.

COMMUNITY

ENGAGEMENT AND SUSTAINABLE SOCIAL DEVELOPMENT

Ratch Pathana and Affiliates places great importance on community and social development, focusing on creating participation and improving the quality of life for people in the community while preserving traditional lifestyles. The group promotes the development of community potential and addresses social issues to enable self-sufficiency in a sustainable manner. At the same time, the business operates on the foundation of social responsibility, aiming to create sustainability in all dimensions.



Policy on Community/Social Development and Engagement

The company has set guidelines for community development and engagement in its sustainability policy under the social dimension as follows:

- **Community Involvement and Development:** Promote the development within the community, including education, economy, quality of life, and society as a whole, with corporate social responsibility (CSR). It also encourages employees to participate in public benefit activities and the preservation of the community's cultural traditions regularly.
- **Human Rights and Labor Practices:** Respect and support the protection of human rights in all forms. Treat stakeholders, others, and employees equally, regardless of gender, age, skin color, education, nationality, religion, and personal beliefs. Ensure that employees receive fair rights, benefits, and welfare in accordance with labor laws.
- **Capability Development and Employee Retention:** Focus on developing the potential and capabilities of employees by supporting training, knowledge sharing, and providing necessary resources so they can work to their full potential. Encourage creativity and a sense of entrepreneurship.
- **Health and Safety Environment:** Enhance health and safety in the workplace by promoting awareness and providing continuous education on occupational health and safety for employees.
- **Participation of Stakeholders:** Promote collaboration with all stakeholders to achieve mutual benefits, find solutions, and establish appropriate measures. Set clear communication channels that are diverse and in line with the lifestyles of all stakeholder groups.

Sharing Benefits with Society

In 2024, the company carried out 343 projects/activities for community/society development and assistance, with a total value of 9,732,737.78 baht.



Power Development Fund for Local Development

The Power Development Fund was established by the decision of the Energy Regulatory Commission, Ministry of Energy, to improve the quality of life and local development in areas surrounding power plants. Ratch Pathana and Affiliates has contributed funds to the Electricity Development Fund based on the capacity and type of power plant. Additionally, a Community Development Fund was established around the Biomass Collection and Processing Center in Lamphun Province, which serves as the source of biomass fuel for the biomass power plant. The fund allocates budgets for local development and improving the quality of life in the community through various projects, such as:

- Promoting community shop occupations
- Donating medical equipment to community health promotion hospitals
- Upgrading the village public announcement system
- Supporting fitness equipment for the community
- Improving the village water supply system
- Road repair projects

Moreover, the company has sent representatives to attend meetings and provide suggestions to serve as information for considering various projects.



In 2024, the Ratch Pathana and Affiliates contributed funds to be donated to local areas for quality of life development, with a total value of 8,356,283.53 baht, consisting of:

| Electricity Fund for Local Development | Value (THB) |
|--|---------------------|
| Chonburi Province Electricity Development Fund 1 | 7,027,495.16 |
| Kamphaeng Phet Province Electricity Development Fund 8 | 562,581.43 |
| Lamphun Province Electricity Development Fund 3 | 666,206.94 |
| Biomass Collection and Processing Center Development Fund (Lamphun), Saha Cogeneration Green Co., Ltd. | 100,000 |
| Total | 8,356,283.53 |



The Ratch Pathana and Affiliates energy business focuses on fostering participation and social development, especially in communities surrounding power plants, which may be impacted by the company's operations. In addition to conducting environmentally friendly business practices, the company also emphasizes co-creating

value and developing communities to grow alongside energy security. The company considers minimizing negative impacts and creating benefits for the community at every stage of its business operations. As a result, the company has implemented corporate social responsibility projects that are aligned with and interconnected throughout the entire business process, aiming to develop community potential and address social issues sustainably in all aspects. In 2024, the company carried out community involvement and social development projects, focusing on creating benefits for the community, participating in development, and addressing social issues at the local level. These projects were driven by the needs of the community, as follows:



Examples of Key Projects in 2024

| Category | Project/Activity Name | Objective | Cost (Baht) | Outcome/ Benefits |
|---|--|--|-------------|---|
| Education  | 1. Drawing and Coloring Contest: Childhood Dreams and Sustainable Energy Conservation” (Continuing for the 15 th year | Promote the development of skills and creativity in the arts of children and youth. | 50,000 | Children and youth received educational opportunities, with 100 participants from 26 schools. |
| | Is Scholarship Program (Continuing for the 16 th year) | Support scholarships for children and youth in the areas surrounding the power plant. | 70,000 | Children and youth received educational opportunities, with 60 participants from schools. |
| Sports  | 1. Community Sports Engagement 2. Senior Football 3. Sports Against Drugs Project 4. Donate Sports Equipment to Undersupplied Schools | Promote exercise for health and support the beneficial use of free time, as well as foster good relationships between the company and the community/local authorities. | 49,500 | Support sports-related projects, totaling 26 initiatives. |



| Category | Project/Activity Name | Objective | Cost (Baht) | Outcome/ Benefits |
|--|---|---|-------------|--|
| Environment  | 1. Community Campaign to Address Illegal Waste Disposal Issues 2. Waste Sorting Project 3. Environmental Conservation Awareness Initiative 4. Green Space Expansion Project 5. Clean Canal and Clear Water Project | <ul style="list-style-type: none"> Promote and maintain the environment and support the valuable use of natural resources Engaging with the community/local agencies in promoting environmental conservation and restoration. | 324,029.90 | Supporting 19 environmental activities/projects. |
| Religion/ Culture/ Local Traditions  | 1. Key Buddhist activities include Asalha Puja, Magha Puja, Vesak Day, Kathina, and Pha Pa (forest robe offering), etc. 2. Local traditions include various cultural festivals such as the Songkran Festival, the communal rice harvesting tradition, and specific regional ceremonies. Chonburi Province: Phra That Water Pouring Ceremony, Boon Poy Luang Festival Lamphun Province: Khun Nam Spirit Worship Ceremony Kamphaeng Phet Province: Nop Phra Len Phleng Religious Festival These are just a few examples of the rich cultural and religious heritage observed in different regions. 3. Songkarn 4. Loykratong | <ul style="list-style-type: none"> To preserve valuable traditions and culture while promoting the company's engagement with the community. To uphold religion, preserve culture, and maintain local traditions as fundamental elements in strengthening communities and fostering a livable society. | 109,606 | Supported and participated in a total of 93 religious, traditional, and cultural activities. |



| Category | Project/Activity Name | Objective | Cost (Baht) | Outcome/ Benefits |
|--|---|--|-------------|---|
| Public Benefit / Charity  | 1. Community Development Volunteer Project 2. Electricity for Community Water Supply Project 3. SGF-PEA Project for Community and Society 4. Drinking Water for the Community Project 5. Ratch Pattana Rongjimbob Ai Uin Project: Creating Smiles and Warmth 6. SGF Project: Sharing Love with Younger Generations | To foster participation, develop local areas, and support community activities and organizations related to business operations. | 260,389.40 | Supported a total of 46 public benefit projects. |
| Quality of Life  | 1. Short-Term Vocational Training Project for the Community 2. Biomass Ash Soil Amendment Material Promotion Project 3. “Developing the Potential of Village Health Volunteer Youth (Junior VHVs)” Project | <ul style="list-style-type: none"> Promote skills and improve the quality of life of people in the community/ local area. Promote and collaborate in developing the community economy system to be self-reliant and sustainable. | 264,233 | Supported a total of 87 activities/projects aimed at improving the quality of life. |





Youth Volunteer Village Health Worker (Junior VHV) Potential Development Project.

Ratch Pathana Energy Public Company Limited has implemented the Junior Village Health Volunteer (Junior VHV) Potential Development Project since 2010. The objective of the project is to promote learning in community public health and instill a sense of responsibility in youth regarding health care and volunteerism to help society. The project is held annually, recruiting children and youth aged 10–17 living in communities around the Ratch Pattana Power Plant (Chonburi) to participate in training courses related to health care and community development volunteerism. The courses include basic first aid, fire safety, mangrove forest conservation and restoration, waste sorting, and youth volunteerism for sustainable development, among others.

In 2024, 50 participants completed the Junior VHV program (14th batch). Since its inception, the Junior VHV project has produced 423 youth volunteers who are ready to help their communities and society. The company remains committed to continuing the development and implementation of this project and aims to be part of laying the foundation for the volunteer spirit in Thai youth, helping them grow into good members of society.



“Ratch Pathana Rongjai Mob Ai Uin, Creating Smiles” Project

The company is committed to creating a quality society and providing opportunities for the underprivileged through the “Ratch Pathana Rongjai Mob Ai Uin, Creating Smiles” project. This initiative is continuously carried out to support and assist disadvantaged groups, including children, the elderly, and people with disabilities.

In 2024, the company organized an event at the Pratchinburi School for the Deaf, located in Nern Hom Subdistrict, Mueang District, Prachinburi Province. The goal was to help and share happiness with children who have hearing impairments, intellectual disabilities, autism, physical disabilities, or those who have been abandoned and lack caregivers. A total of 220 children under the school’s care benefited from this activity. The event included the donation of essential items and the provision of a lunch to create a warm atmosphere and bring smiles to the children.

Over the 11 years of the “Ratch Pathana Rongjai Mob Ai Uin, Creating Smiles” project, the company has assisted and supported over 1,000 underprivileged individuals in society. The company will continue to uphold its mission of giving and improving the quality of life for the disadvantaged to promote valuable and sustainable coexistence in society.





“Goodness Seed” Volunteer Project

Promoting a Culture of Sharing and Spreading Goodness to Society

The company values kindness, sharing, and assisting the underprivileged, especially vulnerable groups, through the promotion of volunteerism within the organization under the “Goodness Seed” project. The goal of this project is to instill and encourage employees to recognize the value of giving without expecting anything in return, fostering a sense of social responsibility, and inspiring the expansion of volunteerism throughout the organization. The project includes the following activities:

1. “Goodness Seed” Volunteer Activity

The company organizes this activity once a year to select employees who stand out in doing good deeds and helping others to be “Role Model Volunteers.” The purpose is to inspire colleagues and encourage a culture of sharing within the organization.

2. Community Development Volunteer Project

The company provides opportunities for employees to participate in social activities, such as helping the underprivileged, vulnerable groups, and disaster victims. These activities include donating goods and going into communities to provide assistance.

In 2024, the company collaborated with a volunteer network to organize the “Sharing Compassion with Flood Victims” activity in the Northern region. Employees were invited to donate essential items, and a team of volunteers was sent to assist flood victims in the provinces of Chiang Rai, Phayao, Phrae, Nan, Chiang Mai, Lamphun, and Sukhothai, which were affected by the flooding.



The “Goodness Seed” project not only promotes good deeds within the organization but also serves as a driving force to create a society of sharing and sustainability. The company is committed to expanding this project into an organizational culture that continuously sparks volunteerism, helping to build a strong and sustainable society in the long term.



Biomass Ash Value-Added Project

Biomass ash is a byproduct of the energy production process at biomass power plants. It is alkaline and contains essential nutrients that plants need, making it suitable for agricultural use as a soil amendment material. There is significant interest among farmers in utilizing biomass ash to increase agricultural productivity, particularly among bamboo growers, rice farmers, longan orchard operators, and sugarcane farmers, among others. Additionally, biomass ash is also suitable for use in the production of construction materials, such as lightweight bricks or concrete blocks. Since 2013, the company has been collaborating with local educational institutions to study and continuously develop the use of biomass ash.

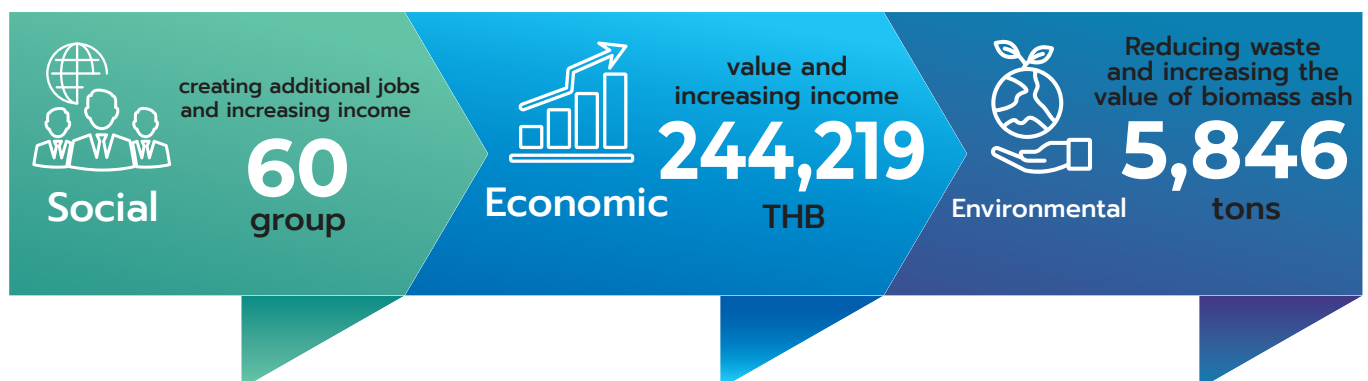
Utilization of Biomass Ash

The company has applied the results of research studies to further develop and disseminate knowledge on the utilization of biomass ash to farmers and interested parties. This is done through community-based enterprises, training programs, and study tours in surrounding areas. Examples include the promotion of agricultural materials, soil improvement, and planting materials using biomass ash, the “Public-Private Partnership Project: Teaching Kids to Grow Vegetables,” and the “Sustainable Kra Prai Project,” among others.

Biomass Ash Utilization Project 2022-2024

| Year | Number of users (individuals) | Amount of usage (tons) | Total value (THB) |
|------|-------------------------------|------------------------|-------------------|
| 2022 | 19 | 6,131 | 613,129 |
| 2023 | 33 | 5,846 | 644,221 |
| 2024 | 18 | 2,035 | 244,219 |

Benefits from the project



1. Creating added value and increasing income for farmers, totaling 244,219 THB.
2. Reducing costs from purchasing chemical fertilizers, totaling more than 100,000 THB.

1. Reducing waste and increasing the value of biomass ash, totaling 5,846 tons.
2. Reducing the use of chemicals that are harmful to soil resources, health, and the environment.
3. Improving agricultural land and enhancing soil fertility.



Biomass Value-Added Project “Turning Wood Waste into Energy” “Reduce burning, reduce smoke problems.”

Ratch Pathana and Affiliates focuses on the development of comprehensive renewable energy solutions while promoting the circular economy through the “Clean Energy from Biomass” project. This initiative aims to add value to agricultural by-products such as wood scraps, sawdust, corn stalks, sugarcane leaves, and cassava roots, instead of burning them. This helps reduce the smoke problem and promotes the sustainable use of clean energy.

The company has established a biomass collection and processing center to serve as a hub for purchasing biomass from local farmers. This biomass is used as fuel to generate electricity and steam for the Group’s biomass power plants. This project has been in operation since 2010 and continues to this day, providing income for farmers, reducing agricultural waste, and contributing to the reduction of greenhouse gas emissions.

The biomass value-added project provides benefits in terms of the economy, society, and the environment, including income distribution to local communities, job creation, and reducing the burning of agricultural by-products in open areas. This helps alleviate issues related to smog or air pollution and reduces greenhouse gas emissions.

In 2024, the company purchased a total of 235,003 tons of agricultural by-products, with a total value of 287,998,663.07 THB, from over 2,000 small-scale farmers. The details of the results are as follows:

| Biomass types | Weight (tons) | Value (THB) |
|------------------|----------------|-----------------------|
| Wood chips | 94,001 | 144,203,597.39 |
| Wood scraps | 77,412 | 82,544,435.68 |
| Rice husks | 26,466 | 34,955,227.60 |
| Corn stalks | 17,993 | 15,207,117.10 |
| Sugarcane leaves | 19,131 | 11,088,285.30 |
| Total | 235,003 | 287,998,663.07 |

The purchase of biomass helps reduce the problem of uncontrolled burning of agricultural by-products, which aligns with the government’s policy to promote the cessation of agricultural burning after the harvest season. The company also encourages farmers to sell their agricultural by-products to power plants for use as biomass fuel instead of burning them. This not only helps increase income for farmers but also contributes to reducing smog and air pollution.

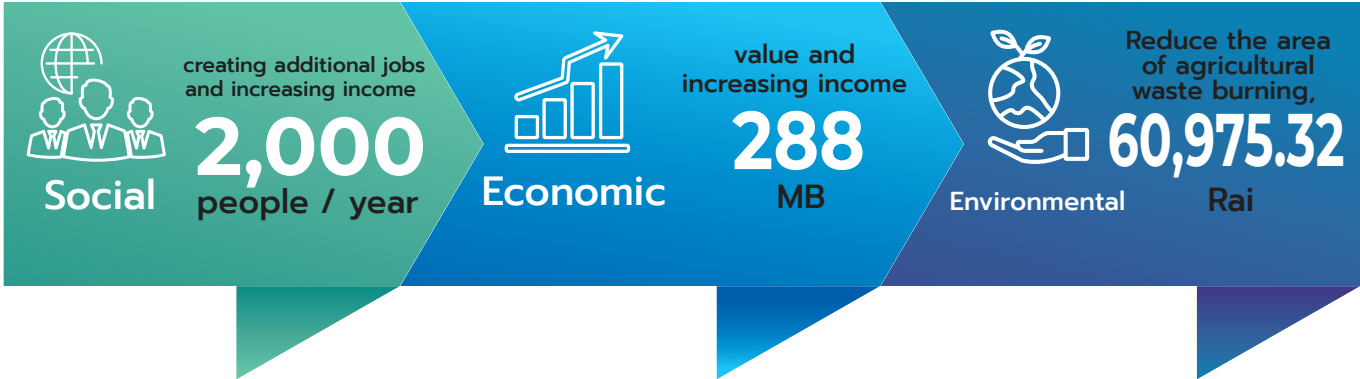
In 2024, the company used alternative biomass fuel to generate energy, helping reduce agricultural burning. This is equivalent to reducing the burning of corn stalks by 51,409.70 Rais and the burning of sugarcane leaves by 9,565.62 Rais

| Alternative biomass types | 2022 | | 2023 | | 2024 | |
|---------------------------|-----------------|--------------------------------|-----------------|--------------------------------|-----------------|--------------------------------|
| | Quantity (tons) | Area of reduced burning (Rais) | Quantity (tons) | Area of reduced burning (Rais) | Quantity (tons) | Area of reduced burning (Rais) |
| Corn stalks | 20,914 | 59,754 | 21,154 | 60,440 | 17,993 | 51,409.70 |
| Sugarcane leaves | 50,695 | 25,347 | 26,972 | 13,486 | 19,131 | 9,565.62 |
| Total | 71,609 | 85,101 | 48,126 | 73,926 | 37,124 | 60,975.32 |

Note: Data statistics on the utilization of alternative biomass by the Ratch Pathana and Affiliates

- For corn planting, 1 Rais produces approximately 350 kg or 0.35 tons of corn stalks and corn husks per Rais.
- For sugarcane planting, 1 Rais produces approximately 2 tons of sugarcane leaves per Rais.

Benefits from the project 2024



Reduce unemployment rates / create jobs for small-scale farmers in a continuous business from upstream to downstream, more than 2,000 people per year.



Generate income for farmers selling biomass, distributing income to local communities, with a total value of over 200 million baht per year.



- Alleviate the PM 2.5 dust problem and reduce the issue of uncontrolled burning of agricultural waste by utilizing biomass to produce energy with modern technology.
- Reduce the area of agricultural waste burning, equivalent to reducing the burning of sugarcane leaves and corn stalks, totaling over 80,000 Rais per year.
- Help reduce greenhouse gases by more than 100,000 tons of CO₂ per year.



Fast-growing trees for energy project



The “Fast-Growing Trees for Energy” project focuses on planting various fast-growing tree species, such as Leucaena leucocephala, Giant Leucaena, Narong Leucaena, Eucalyptus, Mahogany, and Rain Tree. The project involves planting and harvesting in rotation every 2–5 years to use as a sustainable renewable energy source for the alternative energy business within the cogeneration group. Additionally, it contributes to increasing green spaces and reducing global warming.

This project has been in operation since 2007. Currently, there is a total of 3,219 Rais of fast-growing trees planted, with ages ranging from 1 to 5 years, in the Lamphun and Lampang provinces. Over 859,473 trees have been planted so far.

In addition to promoting renewable energy, this project also provides economic and social benefits to local communities. It creates employment for over 200 people annually and generates income for farmers in the area, totaling more than 1,000,000 baht per year. This project is therefore an important approach that helps drive the local economy while simultaneously contributing to sustainable environmental conservation.

The results of the “Fast-Growing Trees for Energy” project between 2022 and 2024.

| Year | Area of tree planting (Rais) | Number of trees (trees) |
|------|------------------------------|-------------------------|
| 2022 | 3,570 | 953,190 |
| 2023 | 3,276 | 874,692 |
| 2024 | 3,219 | 859,473 |

Survey of community attitudes towards the company’s operations.

In 2024, the company conducted a public opinion survey in the area surrounding the power plant from the operation of the Phase 4 Expansion Cogeneration Power Plant Project (SPP Replacement), conducted by Eastern Thai Consulting 1992 Co., Ltd., which is authorized by the Department of Industrial Works and registered as a private laboratory for analysis. The survey was carried out using a Simple Random Sampling method, sampling the population to assess community attitudes, socio-economic conditions, and environmental attitudes in the present day. The survey is conducted once a year, gathering opinions from residents living within a 5-kilometer radius of the power plant. The purpose of the survey is to

- 1. To study the level of public attitudes towards environmental management and corporate social responsibility operations.
- 2. To assess the level of public satisfaction with the projects implemented by the power plant.
- 3. To compare the level of public attitudes towards environmental management and corporate social responsibility operations within the inner 5-kilometer radius of the power plant.

The results of the community attitude survey towards Ratch pathana Energy Public Company Limited.

| Survey topics | Satisfaction level survey (%) | |
|---|-------------------------------|-----------|
| 1. The level of attitude towards the company's community and social operations image. | 88.90 | Excellent |
| 2. The level of public satisfaction with the social and community development projects implemented by the company. | 100.00 | Excellent |
| 3. The level of satisfaction with the changes/development in the community and society resulting from the company's operations. | 78.00 | Good |
| 4. The level of attitude towards the strength and quality of the organization's social efforts in the local community. | 88.10 | Excellent |

Monitoring and evaluating the impact on the community from the company’s business operations.

Stakeholder participation

The company values stakeholder participation by providing opportunities for feedback and suggestions on organizational development through various channels, including:

- Disseminating information through the company’s communication channels
- A complaint reception channel through community relations officers
- Communication through community leaders and other channels of the company

The suggestions received from stakeholders will be considered to improve and develop the company’s operations to align with the needs of the community and society.

Tri-party Committee

The company has established a Tri-party Committee as a platform for exchanging information, monitoring, auditing, and evaluating the company’s operations, with an emphasis on participatory operations. This helps promote transparency and the involvement of all sectors, leading to the long-term sustainability of both the organization and the community.

Disputes with the community/society in 2024.



Measures or approaches for managing disputes with the community/society.

1. Establish a Tri-party Committee to monitor and oversee the company's operations and serve as a platform or channel for communication with the community.
2. Establish guidelines for handling complaints or disputes with the community/society as follows:
 - o Community relations officers/sustainability officers or environmental officers receive complaints
 - o Investigate the facts
 - o Notify the complainant of the results
 - o In case of impact from the company, coordinate with relevant agencies to expedite problem resolution
 - o Follow up on the resolution process and inform the complainant once the issue is resolved.
3. Communicate and disseminate information to the community through all channels consistently and comprehensively.





ENVIRONMENTAL

Environmental Operations Commitment to Environmental Management

Ratch Pathana and Affiliates set environmental goals with a strong commitment to continuously improving its management systems to meet high-quality standards. The company integrates business operations with environmental stewardship and social responsibility. It has established policies on quality, environmental protection, safety, and energy conservation to ensure the reliable supply of high-quality energy while taking responsibility for environmental protection, pollution prevention, occupational health and safety, energy conservation, and greenhouse gas reduction.

Environmental Policy and Compliance

1. The company strictly adheres to laws and regulations governing quality, environmental protection, occupational health and safety, and energy management.
2. Measures are in place to prevent, reduce, and mitigate pollution, wastewater discharge, waste, and emissions resulting from business activities. Efficiency improvements aim to reduce energy and water consumption while preserving biodiversity and adapting to climate change.
3. Risk management strategies are implemented to minimize incidents, accidents, asset damage, and occupational hazards affecting employees, contractors, and stakeholders.
4. Employees, contractors, and stakeholders are provided with training and awareness programs on environmental management, quality control, and energy conservation.
5. Stakeholder engagement and consultation processes are promoted to enhance operational safety and efficiency.
6. The company allocates adequate resources to achieve environmental and sustainability objectives while ensuring efficient use of natural resources.
7. The company maintains the security of its utilities and infrastructure, ensuring preparedness for emergencies affecting production and supply chain continuity.
8. Environmental performance and sustainability targets are regularly reviewed to drive continuous improvement, with transparent communication of progress to stakeholders.

Environmental Compliance and Performance

Ratch Pathana and Affiliates committed to full compliance with environmental regulations and legal requirements applicable to its operations. The company adheres strictly to Environmental Impact Assessment (EIA) frameworks at Rach Patana Energy Power Plant, as well as Initial Environmental Examination (IEE) and Code of Practice (CoP) guidelines at Sahacogen Green Biomass Power Plant and Sahagreen Forest Biomass Power Plant. To ensure compliance, environmental quality is continuously monitored, with biannual reports submitted to regulatory authorities.

The company has also established an Environmental Management System (EMS) to ensure operations align with legal and regulatory requirements. Recognizing the importance of sustainable environmental management, the company continuously enhances its environmental strategies to meet international standards. Between 2005 and 2024, the company underwent external audits conducted by the Management System Certification Institute (MASC) and successfully achieved ISO 14001 : 2015 certification. Currently, 33% of Ratch Pathana’s subsidiaries are ISO 45001:2018 certified, reflecting the company’s unwavering commitment to environmental responsibility, operational excellence, and long-term sustainability.

This demonstrates the company’s unwavering commitment to environmentally responsible operations and strict compliance with environmental regulations. It reflects the continuous development and tangible improvement of the company’s environmental management system. Moving forward, the company remains dedicated to enhancing and expanding its operations in alignment with international standards, further minimizing environmental impact and creating long-term value for all stakeholders.

From 2022 to 2024, the company has maintained full compliance with environmental regulations, with no recorded complaints, violations, fines, or penalties related to environmental laws. This reflects the company’s strong commitment to sustainable business

practices and strict adherence to environmental standards

| Incident/Issue | Number of Cases (per year) | | |
|---|----------------------------|------|------|
| | 2022 | 2023 | 2024 |
| Complaints and environmental law violations | 0 | 0 | 0 |
| Fines for legal violations (THB) | 0 | 0 | 0 |

Water Management

- Sustainable Water Management Plan**

Ratch Pathana and Affiliates places a strong emphasis on efficient water resource management across all production processes, from water intake to post-production environmental conservation. The company has established strict water management measures in full compliance with legal requirements, ensuring minimal impact on community water resources while mitigating operational risks associated with water scarcity.

Key Water Management Strategies:

- Ratch Pathana Energy and Sahacogen Green Biomass Power Plants are located within the Saha Industrial Park, utilizing water from designated industrial water sources that provide sufficient reserves for production, without affecting local community water supply.
- Process Water Treatment and Reuse:
 - Neutralization Basin: Water from production processes undergoes quality adjustments before being transferred to the wastewater treatment system of the Saha Industrial Park.
 - Water Reuse Initiatives: Treated water is repurposed for landscaping irrigation, with excess water discharged into external water bodies in full compliance with legal discharge standards.
 - Cooling System Compliance: Water discharged from cooling systems is regulated to not exceed 40°C, in accordance with legal temperature limits for environmental protection.

RO Rejected Water Recycle Project – Ratch Pathana Energy Power Plant

Ratch Pathana Energy has implemented the RO Rejected Water Recycle Project, a water conservation initiative designed to reclaim and reuse process water through a Reverse Osmosis (RO) Water Recycle system. This project has successfully reduced freshwater consumption in production processes while also minimizing wastewater disposal costs.

RO Rejected Water Recycle in 2022-2024

| Year | 2022 | 2023 | 2024 |
|--|------------|-----------|-----------|
| Water Saved in Production (m ³ /year) | 113,556.80 | 89,702.60 | 48,350.20 |

Sahagreen Forest Biomass Power Plant has adopted a comprehensive water management strategy by constructing a 40-Rais water reservoir with a storage capacity of 370,000 cubic meters per year, ensuring a stable water supply for year-round power generation.

Key Features of the Water Management System:

- Sediment Separation & Main Reservoir: Designed to maintain water quality, reduce the need for chemical treatment, and minimize wastewater discharge.
- Green Belt Initiative: Windbreak trees have been planted around the reservoir to reduce water evaporation and facilitate water reuse in power generation.
- Zero Discharge Approach: All treated water is retained and reused for landscaping irrigation, with no wastewater discharge into external water bodies.

To ensure compliance and minimize environmental impact, the plant strictly monitors water quality and cooling water temperatures as per legal requirements. Additionally, regular ecological assessments are conducted to safeguard the local aquatic ecosystem.



Water Risk Management

The company recognizes the critical importance of sustainable water management to mitigate water scarcity risks and enhance water-use efficiency in its operations. To ensure a stable water supply for power generation, the company has implemented the following measures:

1. Water Management at Power Plants

- Ratch Pathana Energy Power Plant (Chonburi Province): Sources raw water from a regional water network covering three provinces: Chonburi, Rayong, and Chachoengsao. Secured a 10-year long-term water supply contract with backup reserves for emergency situations.
- Ratch Pathana Energy & Sahacogen Green Biomass Power Plants: Located within the Saha Industrial Park, utilizing dedicated industrial water sources that do not impact local community water supply.
- Sahagreen Forest Biomass Power Plant: Constructed a 40-rai water reservoir with a storage capacity of 370,000 cubic meters per year, ensuring year-round power generation.

2. Water Risk Assessment

- Water stress, flood risks, drought conditions, and water quality concerns.
- Short-term (annual) and long-term (project lifecycle) risk evaluations.
- Utilization of risk assessment results to develop and enhance preventive and mitigation plans.
- Annual risk reviews to refine strategies based on improved forecasting data.

3. Additional Measures for Efficient Water Management

- Installation of water treatment systems before water enters production processes.
- Increased water recirculation cycles in cooling systems to reduce raw water consumption.
- Reuse of treated RO wastewater for applications such as landscaping and green spaces.
- Regular inspections of water pipelines to prevent leaks and minimize water loss.

4. Optimization of Water Usage through the 3Rs Approach (Reduce–Reuse–Recycle)

- Reduce water usage in production by increasing recycling loops within cooling tower systems.
- Reuse treated wastewater as a substitute for raw water, reducing dependence on public water sources.
- Recycle and consistently monitor discharged water to ensure compliance with environmental standards and minimize community impact.

5. Collaborative Water Resource Management

- Engagement with government agencies, such as the Royal Irrigation Department and the Ministry of Natural Resources and Environment, along with local communities, to align water usage with availability.
- Monitoring water forecasts and watershed conditions to anticipate fluctuations in supply.
- Establishing agreements with water suppliers to secure emergency water reserves in case of shortages.

Water Consumption Reduction Targets and Achievements (2024)

| Target | Achievement |
|---|--|
| Ratch Pathana Energy Power Plant | |
| • Reduce process water consumption by reusing at least 40,000 m ³ of treated wastewater (3% of total water usage). | 48,350.20 m ³ of wastewater was reused, achieving 3% of total water savings. |
| • Reduce office water consumption by at least 2,593.8 m ³ (40% of total office water use). | 2,996.17 m ³ of office water was saved, achieving 46% reduction. |
| Sahacogen Green Power Plant | |
| • Reduce process water consumption by reusing at least 45,000 m ³ (9.74% of total water usage). | 53,432 m ³ of wastewater was reused, achieving 11.36% of total water savings. |
| • Reduce office water consumption by 346 m ³ (4% from the 2023 baseline). | 1,105 m ³ of office water was saved, achieving 15.96% reduction. |
| Sahagreen Forest Power Plant | |
| • Reduce process water consumption by reusing at least 20,000 m ³ annually (5.13% of total water usage). | 15,507 m ³ of wastewater was reused, achieving 4.48% reduction. |
| • Reduce office water consumption by 1,000 m ³ (45.64% from the 2023 baseline). | 1,637 m ³ of office water was saved, achieving 74.71% reduction. |

Water Consumption Statistics

| Ratch Pathana Energy Power Plant | 2022 | 2023 | 2024 |
|--------------------------------------|--|------------|------------|
| Water Consumption (m ³) | 1,824,400 | 1,908,007 | 1,698,676 |
| Water Intensity (Withdrawal/MWh net) | 1.74 | 1.98 | 2.40 |
| Treated Wastewater (%) | 100 | 100 | 100 |
| Water Management Approach | Industrial Park Treatment System / Green Area / RO Rejected Water Recycl | | |
| Sahacogen Green Power Plant | 2022 | 2023 | 2024 |
| Water Consumption (m ³) | 311,616.00 | 357,221.00 | 355,857.01 |
| Water Intensity (Withdrawal/MWh net) | 4.96 | 5.36 | 5.34 |
| Treated Wastewater (%) | 100 | 100 | 100 |
| Water Management Approach | Industrial Park Treatment System / Green Area | | |
| Sahagreen Forest Power Plant | 2022 | 2023 | 2024 |
| Water Consumption (m ³) | 400,671.00 | 448,220.00 | 391,445.67 |
| Water Intensity (Withdrawal/MWh net) | 7.12 | 7.93 | 4.68 |
| Treated Wastewater (%) | – | – | – |
| Water Management Approach | zero discharge | | |

Wastewater Discharge and Quality (2022-2024) Ratch Pathana Energy Power Plant

| Parameter | 2022 | 2023 | 2024 |
|--|------------|------------|------------|
| Wastewater Discharge Volume (m ³ /year) | 536,531.03 | 670,593.02 | 239,143.65 |
| Water Quality | | | |
| • Temperature (°C) | 31.8 | 31.8 | 32.6 |
| • pH Level | 7.7 | 7.6 | 7.6 |
| • Biochemical Oxygen Demand (BOD) (mg/L) | 2.0 | 2.5 | 2.3 |
| • Chemical Oxygen Demand (COD) (mg/L) | 50.1 | 48.9 | 40.3 |
| • Total Dissolved Solids (mg/L) | 863.6 | 855.4 | 805.5 |

Sahacogen Green Power Plant

| Parameter | 2022 | 2023 | 2024 |
|--|--------|--------|--------|
| Wastewater Discharge Volume (m ³ /year) | 54,760 | 48,627 | 60,000 |
| Water Quality | | | |
| • Temperature (°C) | 32 | 34 | 33 |
| • pH Level | 8.7 | 8.7 | 8.8 |
| • Biochemical Oxygen Demand (BOD) (mg/L) | 21.1 | 11.6 | 9.0 |
| • Chemical Oxygen Demand (COD) (mg/L) | 161 | 80 | 97 |
| • Total Dissolved Solids (mg/L) | <3.0 | <3.0 | <3.0 |

Sahagreen Forest Power Plant

| Parameter | 2022 | 2023 | 2024 |
|--|--------|--------|--------|
| Wastewater Discharge Volume (m ³ /year) | 78,419 | 58,740 | 51,082 |
| Water Quality | | | |
| • Temperature (°C) | 31 | 31 | 31 |
| • pH Level | 7.5 | 7.9 | 8.0 |
| • Biochemical Oxygen Demand (BOD) (mg/L) | 11.6 | 9.3 | 8.7 |
| • Chemical Oxygen Demand (COD) (mg/L) | 118 | 87 | 75 |
| • Total Dissolved Solids (mg/L) | <3.0 | <3.0 | <3.0 |

Water Usage Incident Statistics

| Incident/Issue | Number of Cases (per year) | | |
|--|----------------------------|------|------|
| | 2022 | 2023 | 2024 |
| Conflicts with water users/stakeholders | 0 | 0 | 0 |
| Environmental violations/legal infractions | 0 | 0 | 0 |



Waste Management

- **Waste Management Plan**

Ratch Pathana and Affiliates implements waste management in compliance with legal standards and specific measures for each power plant. The waste is categorized into two types: hazardous waste and non-hazardous waste, and is managed as follows:

1. **Hazardous Waste:** This includes waste that may impact on the environment, such as transformer oil, engine oil, chemical drums, etc. The company controls the usage of transformer oil that does not contain hazardous substances and ensures proper disposal according to legal requirements. The waste is disposed of by licensed agencies authorized by the Department of Industrial Works.

2. **Non-Hazardous Waste:** This refers to waste similar to household waste, such as food scraps, wood, paper, cables, plastic bags, construction materials, etc. Measures are in place to segregate and manage these materials before they are either safely landfilled or repurposed. The company has established a waste bank project to raise awareness and encourage employees to consider resource efficiency and sustainability.

Additionally, the biomass ash generated from the combustion process in the Sako-Cogen Green and Sako-Green Forest Biomass Power Plants is classified as non-hazardous waste. This ash has been developed for use in agriculture and brick production, which is distributed to local communities through the company's corporate social responsibility programs. This initiative helps maximize the value of non-hazardous waste, ensuring its optimal benefit.

Waste Management Target for 2024

| Target | Performance Results |
|--|--|
| Ratch Pathana Energy Power Plant | |
| Amount of waste from the production process sent for incineration (non-energy) to be zero | Amount of waste from the production process sent for incineration (non-energy) is zero |
| Reduce office waste disposed of by landfill by 10% through the 3R process | Reduced office waste disposed of by landfill by 2.42 tons, representing 8.09% through the 3R process |
| Sahacogen Green Power Plant | |
| Waste from the production process sent for incineration to be zero; hazardous waste sent for landfill to be zero | Waste from the production process sent for incineration (non-energy) is zero |
| Reduce office waste disposed of by landfill by 10% of total general waste in 2024 through the 3R process | Reduced office waste disposed of by landfill by 12.52 tons, representing 13.50% through the 3R process |
| Sahagreen Forest Power Plant | |
| Waste from the production process sent for incineration to be zero; hazardous waste sent for landfill to be zero | Waste from the production process sent for incineration (non-energy) is zero |
| Reduce office waste disposed of by landfill by 8% through the 3R process | Reduced office waste disposed of by landfill by 624 kg, representing 8.95% through the 3R process |

Waste Generation Volumes from Business Operations

| Company | Item | 2022 | 2023 | 2024 |
|---------|--|-----------|-----------|-----------|
| SCG | Non-hazardous waste (tons) | 168.72 | 115.50 | 90.07 |
| | Hazardous waste (tons) | 28.74 | 23.10 | 18.15 |
| | Waste reused (tons) | 0 | 4.39 | 2.35 |
| | Other recovery operations (tons) | 11.9 | 11.31 | 7.06 |
| | Non-recyclable waste (tons)) | 185.56 | 122.9 | 98.86 |
| SGN | Non-hazardous waste (biomass ash) (tons) | 12,521.71 | 12,215.90 | 12,526.64 |
| | Hazardous waste (tons) | 5.22 | 8.90 | 4.7 |
| SGF | Non-hazardous waste (biomass ash) (tons) | 6,367.89 | 4,956.00 | 2653.06 |
| | Hazardous waste (tons) | 2.52 | 1.57 | 2.25 |

Waste Management Promotion Activities within the Organization

Last year, the company implemented the 3R principles (Reduce, Reuse, Recycle) to manage waste and promote environmental responsibility within the organization. The following approaches were adopted:

1. Reduce (Reducing Consumption)

- o Reduced paper usage by supporting electronic documentation systems (Paperless Office).
- o Reduced the use of single-use packaging, such as plastic cups and utensils.
- o Encouraged the use of environmentally friendly materials within the office.

2. Reuse (Reusing Materials)

- o Provided communal containers for reusable items, such as water glasses and lunchboxes.
- o Encouraged employees to reuse office supplies, such as file folders and document envelopes.
- o Set up donation points for reusable items, such as clothes, books, and office equipment, to be given to those in need.

In the past year, the company launched a donation project to collect unused items from employees, such as clothes, books, toys, and other good-condition goods, which were sent to the Ban Nok Khamin Foundation and organizations supporting disadvantaged individuals. This initiative helped reduce waste and maximize the value of resources. Additionally, the company collaborated with partners to donate recyclable waste, such as old bras to Waco Ltd. Lamphun, and soda can pull tabs for prosthetic leg production. This project is ongoing every year to promote efficient and sustainable resource use.

3. Recycle (Recycling)

- Segregated waste by type, such as paper, plastic, and organic waste, for proper recycling.
- Established e-waste collection points for discarded items like batteries and light bulbs.
- Coordinated with external agencies for the proper disposal of hazardous waste.

The implementation of the 3R principles has helped reduce waste within the organization, increase resource efficiency, and foster an environmentally friendly workplace culture.

- Sahacogen Green Co., Ltd. has participated in the “Lamphun Clean City for Sustainable Development” project for the fourth consecutive year in 2024. The project aims to promote and develop businesses toward a green industry. It drives initiatives such as the Wet Waste–Free Province project, Lamphun Clean City without Foam (Foam–Free), and the “Lamphun People United for the Environment” campaign. The focus is on reducing, refusing, and reusing plastic shopping bags and plastic straws. Additionally, the project enhances waste management practices in Lamphun Province to ensure continuous, tangible progress and long–term sustainability.
- Waste Bank for the Environment Project Sahacogen Green Co., Ltd. and Sako–Green Forest Co., Ltd. launched the Waste Bank for the Environment project to raise employee awareness about environmental protection through waste segregation in both offices and factories. The initiative also encourages employees to donate or exchange household waste for goods before selling it to recycling buyers. The goal of the project is to reduce waste and help mitigate global warming caused by greenhouse gases. In 2024, the project segregated five types of waste: paper, plastic, metal, glass, and aluminum, totaling 764 kilograms, resulting in a reduction of greenhouse gas emissions by 549.92 kg CO2 equivalent.

Summary of Waste and Greenhouse Gas Emission Reduction from Waste Segregation for Recycling in the Waste Bank for the Environment Project (2024)

| Waste Type | Waste Volume (Kg) | Greenhouse Gas Emission Reduction (kgCO2e) |
|--------------|-------------------|--|
| Paper | 412 | 203.53 |
| Plastic | 90 | 78.21 |
| Metal | 61 | 69.95 |
| Glass | 619 | 460.54 |
| Aluminum | 13.5 | 45.58 |
| Total | 764 | 549.92 |

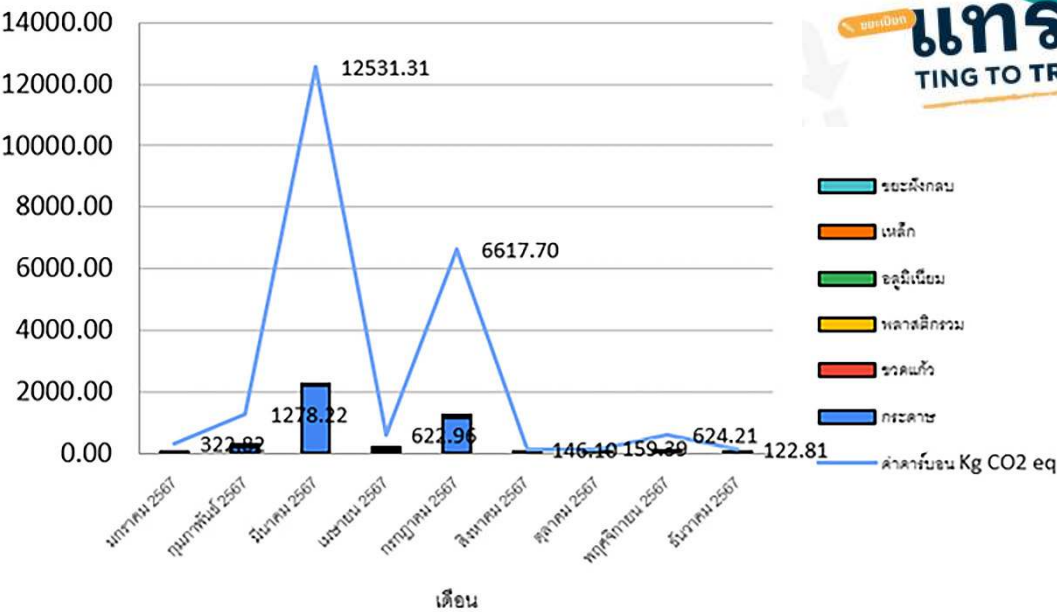
Note: The project supports greenhouse gas emission reduction activities through waste segregation for recycling (source: GHG Reduction) by the Greenhouse Gas Management Organization (Public Organization).



• Ratch Pathana Energy Public Company Limited participated in the “Ting to Trash” project with the Securities and Exchange Commission (SEC) and the Thai Listed Companies Association to promote registered companies’ understanding of proper waste segregation methods and to foster an organizational culture aimed at reducing greenhouse gas emissions.

In 2024, the project segregated 6 types of waste: paper, landfill waste, glass bottles, mixed plastics, metal, and aluminum, with a total weight of 4,167 kilograms. This effort helped reduce greenhouse gas emissions by 22,425.51 kg CO2 equivalent.

Performance Results of the “Ting to Trash” Project (2024)



Air Quality Management

The company strictly adheres to legal requirements for air quality management as follows:

- Air quality measurement equipment is installed at the stack venting point to monitor the levels of pollutants released into the air. These pollutants include total suspended particulates (TSP), sulfur dioxide (SOx as SO2), and nitrogen dioxide (NOx as NO2). The measured pollutant levels for all three types are within the limits set by legal standards.
- Air quality measurement equipment is also installed in the surrounding community areas around the plant. The company monitors air quality regularly and prepares environmental monitoring reports to be presented to the community and relevant authorities every 6 months. This is done to ensure continuous monitoring and control of air quality impacts, keeping them within the legal standards.
- The company has installed an electrostatic precipitator (ESP) system, which is highly effective in removing over 99.5% of particulate matter from exhaust gases at the Sako–Cogen Green Biomass Power Plant and the Sako–Green Forest Biomass Power Plant. This equipment helps prevent airborne dust pollution from being emitted from the power plants, ensuring that the air released from the stack meets the required air quality standards.



Air Pollution Emission Reduction Targets from Production Processes, Year 2024

| Targets | Performance Results |
|--|--|
| Ratch Pathana Energy Power Plant | |
| Reduce nitrogen oxide emissions by more than 280 metric tons from standard requirements, equivalent to 10% | Reduced by 419.38 metric tons, equivalent to 65.79% reduction from standard requirements |
| Reduce sulfur oxide emissions by more than 65 metric tons from standard requirements, equivalent to 10% | Reduced by 144.05 metric tons, equivalent to 98.15% reduction from standard requirements |
| Reduce total particulate matter by more than 95 metric tons from standard requirements, equivalent to 10% | Reduced by 98.06 metric tons, equivalent to 81.37% reduction from standard requirements |
| Sahacogen Green Power Plant | |
| Reduce nitrogen oxide emissions by 54.3 metric tons, equivalent to 10% from standard requirements | Reduced nitrogen oxide emissions by 236.25 metric tons, equivalent to 43.5% from standard requirements |
| Reduce sulfur oxide emissions by 22.7 metric tons, equivalent to 10% from standard requirements | Sulfur oxide emissions reduced by 221.11 metric tons, equivalent to 97.5% reduction from standard requirements |
| Reduce total particulate matter by 17.3 metric tons, equivalent to 10% from standard requirements | Total particulate matter reduced by 165.41 metric tons, equivalent to 95.4% reduction from standard requirements |
| Sahagreen Forest Power Plant | |
| Reduce nitrogen oxide emissions by 21.4 metric tons, equivalent to 10% from standard requirements | Reduced nitrogen oxide emissions by 173.33 metric tons, equivalent to 81.8% from standard requirements |
| Reduce sulfur oxide emissions by 9.0 metric tons, equivalent to 10% from standard requirements | Sulfur oxide emissions reduced by 88.12 metric tons, equivalent to 98.4% reduction from standard requirements |
| Reduce total particulate matter by 6.8 metric tons, equivalent to 10% from standard requirements | Total particulate matter reduced by 64.82 metric tons, equivalent to 94.7% reduction from standard requirements |

Air Quality Monitoring Results for Ratch Pathana and Affiliates, 2022-2024

| Parameter | Average Monitoring Results (Min-Max) | | | Legal Criteria |
|---|--------------------------------------|-------------|-------------|----------------|
| | 2022 | 2023 | 2024 | |
| Natural Gas Power Plant | | | | |
| Ratch Pathana Energy Power Plant | | | | |
| • Total Suspended Particulates (TSP) (mg/m³) | 1.58–6.05 | 0.4–3.52 | 4.91–13.10 | ≤ 54 |
| • Sulfur Dioxide (SOx as SO₂) (ppm) | 0.13–0.87 | 0.07–1.3 | 0.18–0.83 | ≤ 18 |
| • Nitrogen Dioxide (NOx as NO₂) (ppm) | 18.75–97.74 | 30.5–70.99 | 17.32–65.7 | ≤ 108 |
| • Fine Particulate Matter (PM 2.5) (µg/m³) | | | | |
| • Ban Nong Kham Community | – | – | 20.2–27.0 | ≤ 37.5 |
| • Ban Huai Lek Community | – | – | 24.6–29.6 | ≤ 37.5 |
| • Nisarat Kindergarten | – | – | 22.8–29.4 | ≤ 37.5 |
| • Nong Phang Phuai Community | – | – | 17.6–31.3 | ≤ 37.5 |
| Biomass Power Plants | | | | |
| Sahacogen Green Biomass Power Plant | | | | |
| • Total Suspended Particulates (TSP) (mg/m³) | 16.4–28.9 | 5.4–10 | 1.6–8.6 | ≤ 120 |
| • Sulfur Dioxide (SOx as SO₂) (ppm) | <1.3 | <1.4 | 3.7–4.3 | ≤ 60 |
| • Nitrogen Dioxide (NOx as NO₂) (ppm) | 122–143.8 | 65.8–77.1 | 209.4–216.4 | ≤ 200 |
| • Fine Particulate Matter (PM 2.5) (µg/m³) | | | | |
| • Nong Pla Kho Temple | 9.6–19.6 | 11.4–36.0 | 14.9–33.0 | ≤ 37.5 |
| • San Luang Temple | 9.5–19.7 | 0.046–0.140 | 16.5–33.2 | ≤ 37.5 |
| Sahagreen Forest Biomass Power Plant | | | | |
| • Total Suspended Particulates (TSP) (mg/m³) | 3.3–8.7 | 39.4–52.8 | 2.8–11.5 | ≤ 120 |
| • Sulfur Dioxide (SOx as SO₂) (ppm) | <1.3 | <1.4 | 1.6–3.8 | ≤ 60 |
| • Nitrogen Dioxide (NOx as NO₂) (ppm) | 60.6–60.9 | 4–72.4 | 45.1–102.7 | ≤ 200 |
| • Fine Particulate Matter (PM 2.5) (µg/m³) | | | | |
| • Ban Huai Nam Sai School | 4.2–28.3 | 35–37.2 | 1.3–62.0* | ≤ 37.5 |
| • Ban Khui Pom Sub-district Health Promotion Hospital | 4.6–23.1 | 34.3–37.3 | 3.6–55.0* | ≤ 37.5 |

Note: * Although these measurements exceeded the standard threshold in certain periods, a comprehensive environmental assessment, which considered stack emission monitoring results in conjunction with meteorological data such as wind speed and direction, indicated that the dispersion pattern of pollutants did not impact the surrounding communities. Therefore, it can be reasonably concluded that the project activities did not adversely affect air quality in community areas. The measured values more likely reflect the general dispersion characteristics of pollutants in the overall area rather than direct impacts on the communities.

Noise Pollution Management

- Equipment and machinery are designed, installed, and maintained with appropriate inspection schedules to minimize noise generation. Tall, dense trees have been planted to serve as noise barriers and windbreaks, enabling noise levels to be controlled within legally mandated standards.
- Three noise monitoring points have been established: at the noise source within the power plant, in the production control room, and along the power plant perimeter fence. Noise levels are maintained within legal standards, with workplace noise measurements conducted quarterly.
- Hearing protection equipment (earmuffs) is provided to employees who must work in areas where noise levels exceed 80 dBA. Personnel working in such areas are required to wear personal protective equipment to reduce noise exposure. Warning signs have been installed, and this requirement has been established as a mandatory regulation that all employees must strictly follow.

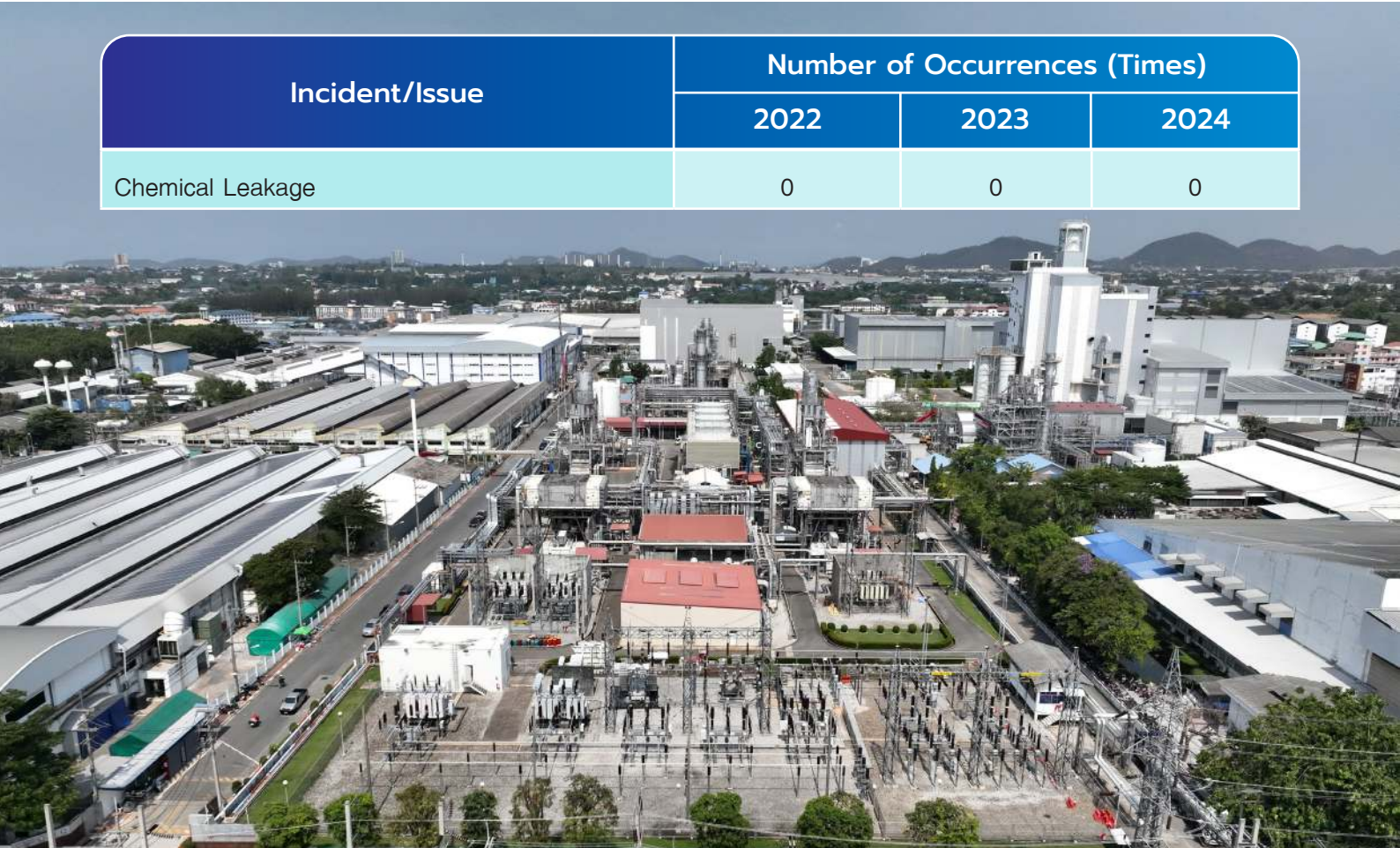
Noise Quality Monitoring Results for Ratch Pathana and Affiliates, 2022-2024

| Noise Quality Monitoring Results | 2022 | 2023 | 2024 | Legal Criteria |
|--|-----------|-----------|-----------|----------------|
| Average Measurement Results (Min-Max) | | | | |
| Ratch Pathana Energy Power Plant | | | | |
| General Noise Level (Leq 24 hr) (dBA) | | | | |
| Northern Project Fence Perimeter | – | – | 64.4–67.5 | 70 |
| Eastern Project Fence Perimeter | – | – | 60.1–63.5 | 70 |
| Southern Project Fence Perimeter | – | – | 64.9–67.4 | 70 |
| Western Project Fence Perimeter | 59.8–63.0 | 61.8–64.0 | 65.9–68.3 | 70 |
| Ban Rai Nueng Area | 56.2–58.5 | 63.4–64.0 | 58.7–68.3 | 70 |
| Workplace Noise Level – Personal Noise Dosimetry (Leq 12 hr) (dBA) | 63.2–80.3 | 78.1–79.9 | 73.1–77.6 | 83 |
| Sahacogen Green Biomass Power Plan | | | | |
| General Noise Level (Leq 24 hr) | | | | |
| Nong Pla Kho Temple Area | 46.6–60.7 | 46.6–60.7 | 48.9–60.4 | 70 dBA |
| San Luang Temple Area | 45.8–63.3 | 45.8–63.3 | 46.8–52.6 | 70 dBA |
| Project Fence Perimeter | 62.7–64.7 | 54.8–65.2 | 64.5–66.6 | 70 dBA |
| Workplace Noise Level – Personal Noise Dosimetry (Leq 12 hr) | 79.3–80.4 | 81–82.1 | 76.1–78.6 | 83 dBA |

| Noise Quality Monitoring Results | 2022 | 2023 | 2024 | Legal Criteria |
|--|---------------------------------------|-----------|-----------|----------------|
| | Average Measurement Results (Min–Max) | | | |
| Sahagreen Forest Biomass Power Plant | | | | |
| General Noise Level (Leq 24 hr) | | | | |
| Location202220232024Legal CriteriaBan Huai Nam Sai School | 48.7 – 55.8 | 47.6–56.7 | 48.5–67.3 | 70 dBA |
| Si Chumphorn Wirawat Temple (Rai Dong Temple) | 50.4 – 51.8 | 65.0–67.5 | 47.8–65.5 | 70 dBA |
| Project Fence Perimeter | 65.0–67.5 | 51.3–58.5 | 64.6–67.4 | 70 dBA |
| Workplace Noise Level – Personal Noise Dosimetry (Leq 12 hr) | 77.7 – 81.9 | 78.6–80.3 | 79.6–82.0 | 83 dBA |
| ผลการตรวจวัดระดับเสียงในพื้นที่ทำงาน–ระดับเสียงสะสมแบบติดตามตัวบุคคล (Leq 12 hr) | 79.3–80.4 | 81–82.1 | 76.1–78.6 | 83 dBA |

Chemical Leakage Statistics (volatile organic compounds: VOC)
During the past three years (2022-2024), there have been no incidents of volatile organic compounds (VOC) leakage.

| Incident/Issue | Number of Occurrences (Times) | | |
|------------------|-------------------------------|------|------|
| | 2022 | 2023 | 2024 |
| Chemical Leakage | 0 | 0 | 0 |





ENERGY MANAGEMENT

Ratch Pathana and Affiliates the importance of efficient energy management alongside conducting business with social and environmental responsibility. The company is committed to promoting and supporting sustainable energy use to reduce greenhouse gas emissions, which are significant factors affecting global warming and climate change. To achieve this goal, the company has established an Energy Conservation Policy as an operational framework and appointed an Energy Management Working Committee to review, develop, and monitor performance regularly. Additionally, the company continuously implements energy conservation projects within the organization, such as energy reporting, study visits, energy

reduction campaigns, and Energy Day activities. The company emphasizes a “participatory energy conservation” approach, believing that cooperation from employees and all sectors will help the organization use energy efficiently, reduce environmental impacts, and truly achieve sustainability goals.

Energy Management Policy and Guidelines

- Implement and develop appropriate energy management systems by establishing energy conservation and energy management as part of the company’s operations in compliance with relevant laws and regulations, leading to sustainable development.
- Continuously and seriously improve the organization’s energy efficiency in line with business, production technology, and internationally accepted best practices.
- Establish annual energy conservation plans and targets, and communicate them to all employees for proper understanding and implementation.
- Monitor and evaluate energy management to review, analyze, and correct energy management deficiencies at least once a year to ensure compliance with relevant laws and regulations.
- Designate energy conservation as a primary responsibility of executives and employees at all levels who must cooperate in implementing specified measures.
- Provide necessary resources to ensure efficient and effective energy conservation and energy management operations, including training to promote energy conservation among employees and encourage employee participation in energy conservation and energy management activities.



Efficient Resource Utilization

Key raw materials for electricity generation include natural gas as the primary fuel, diesel oil as a secondary fuel, and biomass fuels such as wood chips, rice husks, sugarcane leaves, and corn cobs, which play important roles in the production process as follows:

1) Natural Gas

Ratch Pathana Energy Power Plant uses natural gas as fuel for electricity and steam production. The company has signed a long-term natural gas purchase agreement with PTT Public Company Limited for 25 years, ending in April 2049, to support the construction of new power plants under a long-term power purchase agreement with EGAT that will replace the original contract expiring in April 2024.

Since beginning electricity production and distribution, the company has never experienced issues with insufficient quality or quantity of natural gas, reflecting the stability of fuel sources and the company's energy management capabilities.

2) Biomass Fuel

Sahacogen Green Power Plant uses biomass as fuel in biomass power plant production processes. Management approaches include allocating land for fast-growing trees across regions and establishing a Fast-Growing Tree Research Center for Energy located in Mueang District, Lamphun Province, for improving fast-growing tree varieties, sourcing quality parent trees, and propagating fast-growing trees. This ensures confidence that the company's business will grow continuously and sustainably. Additionally, the company has biomass purchasing centers distributed across various areas, establishes biomass management measures through appropriate production and procurement planning, and monitors results monthly. The company also maintains fuel reserves for continuous electricity and steam production.

Sahagreen Forest Power Plant uses biomass as fuel in biomass power plant production processes. The management approach includes making long-term biomass purchase agreements with suppliers, namely Siam Forestry Co., Ltd., a joint venture in which the company holds a 25% stake. The company holds monthly planning and monitoring meetings with joint venture partners and sources alternative biomass fuels to reduce costs. The company also maintains fuel reserves for continuous electricity production.

Since beginning electricity production and distribution, the company has never experienced insufficient biomass fuel issues that would halt production.

3) Diesel Oil

Diesel oil is a backup fuel for electricity and steam production in case natural gas is unavailable. The company maintains sufficient diesel reserves for full-capacity production to continuously serve customers. Diesel is transported to the company by oil trucks



Energy Consumption (Electricity/Fuel) of Ratch Pathana Energy PCL and Subsidiaries in 2024

| Indicator | Unit | SCG | SGN | SGF |
|--|----------------|--------------|------------|-----------|
| Natural gas quantity | Million cu.ft. | 6,380.64 | 0 | 0 |
| Fuel oil quantity | Liters | – | 72,800.00 | 0 |
| Diesel oil quantity | Liters | 5,698.80 | 86,400.00 | 158,842 |
| Biomass quantity | Tons | – | 132,208.54 | 97,629 |
| Net electricity quantity | MWh | 26,563.98 | 9,184 | 116.60 |
| Energy intensity | MMBTU/kWh | 0.2 | 0.02 | 0.02 |
| Energy Consumption | GJ | 6,724,454.39 | 1,681,886 | 1,023,419 |
| Renewable energy usage (purchased energy) | MWh | 14,482.97 | – | – |

Energy Management Targets

| Target | Percentage of Energy Reduction | Performance | Percentage of Energy Reduction Results |
|---|--------------------------------|---|--|
| Ratch Pathana Energy Power Plant | | | |
| Reduce thermal energy by 5,000 MMBTU from production processes from base year 2023 (which used 8,573,584 MMBTU of thermal energy) | 0.1% | Reduced thermal energy by 2,071,532 MMBTU from production processes due to changes in power generation operation patterns according to the new power purchase agreement | 24.16% reduction |
| Reduce electrical energy by 500 MWh from production processes from base year 2023 (which used 32,077.81 MWh of electrical energy) | 2.6% | Reduced electrical energy by 5,513.83 MWh from production processes due to changes in power generation operation patterns according to the new power purchase agreement | 17.19% reduction |
| Reduce electrical energy by 10 MWh from office use from base year 2023 (which used 601 MWh of electrical energy) | 2% | Electricity consumption increased by 49 MWh from office use due to additional use of EV chargers for vehicles since April 2024 | 8.15% increase |

| Target | Percentage of Energy Reduction | Performance | Percentage of Energy Reduction Results |
|--|--------------------------------|---|--|
| Sahacogen Green Power Plant | | | |
| Reduce electrical energy by 3,930 kWh annually from base year 2023, which used 9,180,847 kWh of electricity | 0.04% | Reduced electrical energy by 1,003 kWh from changing HPS bulbs to 150W LED bulbs, with 5 damaged HPS bulbs replaced during the year | 0.01% reduction |
| Reduce electrical energy by 3,930 kWh annually from base year 2023, which used 9,180,847 kWh of electricity | 0.04% | Installed an additional VSD air compressor, which adjusts compressor speed according to compressed air demand, resulting in energy reduction of 50,302 kWh | 0.55% reduction |
| Reduce thermal energy per unit of electricity production by 2,909 GJ/year from base year 2023, which used 1,284,216 GJ of thermal energy | 0.22% | Performed Air Fuel Ratio tuning of the combustion chamber to reduce heat loss from exhaust stacks by 4,111.6 GJ | 0.32% reduction |
| Sahagreen Forest Power Plant | | | |
| Electricity Consumption Reduction: Reduce electricity usage by 90 MWh per year, equivalent to 1.40% from the baseline year (2023), where electricity consumption for operations was 6,386 MWh. | 1.41% | Achieved a reduction of 102.27 MWh through the installation of inverters on cooling fans and modifying the raw water filling process to use gravity instead of electric motors. | 1.59% |
| Thermal Energy Reduction per Unit of Power Generation: Reduce thermal energy consumption by 19,399 GJ/year, equivalent to 1.90% from the baseline year (2023). | 1.90% | Thermal energy consumption increased by 340 GJ from the target of 19,399 GJ/year, due to a decrease in the calorific value of sugarcane leaves and wood chips used as fuel. | Increased by 0.03 |

continuity in Energy Operations with Stability

Since the company began electricity and steam production and distribution, it has been able to operate continuously without ever experiencing disruptions from natural gas delivery issues or biomass shortages. This energy security reflects the efficiency of the value chain management system and the company's ability to manage energy risks.

The company prioritizes sourcing stable and sustainable energy sources to continuously meet the needs of customers and stakeholders while maintaining confidence in the organization's operational capabilities. The company will continue to develop and strengthen energy security to support sustainable growth in the future.

Production Capacity, Production Volume, and Capacity Utilization Rate of Ratch Pathana and Affiliates Plants

| Electricity | Unit | 2022 | 2023 | 2024 |
|--|---------------------|-----------|-----------|-----------|
| Ratch Pathana Power Plant | | | | |
| Installed capacity | Megawatts | 215.58 | 215.58 | 154.20 |
| Maximum potential electricity production | Megawatt-hours/year | 1,888,481 | 1,888,481 | 1,354,493 |
| Actual electricity production for distribution | Megawatt-hours/year | 998,566 | 953,824 | 698,078 |
| Capacity utilization rate | Percentage | 52.88 | 50.51 | 51.54 |
| Sahacogen Green Power Plant | | | | |
| Installed capacity | Megawatts | 9.6 | 9.6 | 9.6 |
| Maximum potential electricity production | Megawatt-hours/year | 84,096 | 84,096 | 84,096 |
| Actual electricity production for distribution | Megawatt-hours/year | 66,240 | 66,609 | 66,621 |
| Capacity utilization rate | Percentage | 78.77 | 79.21 | 79.22 |
| Sahagreen Forest Power Plant | | | | |
| Installed capacity | Megawatts | 7.5 | 7.5 | 7.5 |
| Maximum potential electricity production | Megawatt-hours/year | 65,700 | 65,700 | 62,730 |
| Actual electricity production for distribution | Megawatt-hours/year | 57,509 | 53,660 | 56,258 |
| Capacity utilization rate | Percentage | 87.53 | 81.67 | 89.68 |

Energy Conservation

The company places importance on energy management according to the guidelines set forth in the Ministerial Announcement on Criteria and Methods for Energy Management in Controlled Factories and Buildings B.E. 2552 (2009). The company has implemented an Energy Management System and prepares annual energy management reports to comply with government energy standards and requirements.

Energy Management within the Organization

- 1. Appointment of Energy Management Personnel**
The company has designated Senior Energy Managers for each plant who must register and complete training courses from the Department of Alternative Energy Development and Efficiency, Ministry of Energy, to have the knowledge and ability to efficiently manage and improve energy use.
- 2. Establishment of an Energy Management Working Committee**
The Energy Working Committee is responsible for controlling, implementing, coordinating, and reporting on the organization's energy management, as well as monitoring and reviewing operations to comply with the company's Energy Conservation Policy.
- 3. Implementation of Energy Conservation Projects**
The company is committed to developing Energy Conservation Projects to continuously increase energy efficiency and reduce energy consumption by applying modern technologies and measures in operations.
- 4. Audit and Certification of the Energy Management System**
The company conducts audits and certifications of the Energy Management System by external auditing teams licensed according to law and submits energy management reports and audit results to the Department of Alternative Energy Development and Efficiency, Ministry of Energy annually.



In 2024, the company conducted activities and improved energy efficiency in all operational areas through the participation of personnel at all levels, significantly helping to reduce operational costs as follows:

Ratch Pathana Energy Public Company Limited

1. Project Name: Steam Trap Maintenance Project in Steam Distribution System

Project Description: Replace abnormal Steam Trap equipment to reduce steam losses within the power plant

Project Location: Steam Distribution Line in Sahaphat Industrial Park

| Item | Target | Actual | Unit |
|---------------------------------------|-----------|-----------|----------|
| 1. Quantitative thermal energy target | 2,406,456 | 2,406,456 | MJ |
| 2. Quantitative savings target | 498,886 | 429,094 | THB/year |
| 3. Investment amount | 356,800 | 269,700 | THB |
| 4. Payback period | 0.72 | 0.63 | Year |

2.Project Name: Steam Trap Maintenance Project in Steam Supply System within Power Plant

Project Description: Replace abnormal Steam Trap equipment to reduce steam losses within the power plant

Project Location: Steam Distribution Line within the power plant

| Item | Target | Actual | Unit |
|---------------------------------------|---------|---------|----------|
| 1. Quantitative thermal energy target | 561,075 | 561,075 | MJ |
| 2. Quantitative savings target | 120,594 | 101,404 | THB/year |
| 3. Investment amount | 40,000 | 20,890 | THB |
| 4. Payback period | 0.33 | 0.21 | Year |

Sahacogen Green Company Limited

1.Project Name: HPS to LED Light Bulb Replacement Project (2024)

Project Description: Replace HPS light bulbs with 150W LED bulbs, 5 bulbs

Project Location: SahaCogen Green Biomass Power Plant

| Details | Kilowatt-hours/year | Baht/year |
|--|---------------------|-----------|
| Energy consumption level before project implementation | 3,011 | 9,138 |
| Energy consumption level after project implementation | 2,007 | 6,092 |
| Energy savings | 1,003 | 3,046 |
| Investment | 10,575 | THB |
| Payback period | 3.47 | Year |

2.Project Name: High-Efficiency Air Compressor Installation

Project Description: Install a VSD air compressor, which adjusts compressor speed according to compressed air demand, resulting in reduced energy consumption

| Details | Kilowatt-hours/year | Baht/year |
|--|---------------------|-----------|
| Energy consumption level before project implementation | 285,459 | 1,006,380 |
| Energy consumption level after project implementation | 235,156 | 829,040 |
| Energy savings | 50,302 | 177,340 |
| Investment | 795,010 | THB |
| Payback period | 4.48 | Year |

3.Project Name: Reduction of Heat Loss from Boiler Exhaust Stack through Air Fuel Ratio Tuning

Project Description: Adjust DCS program: Air Fuel Ratio tuning of the combustion chamber to reduce heat loss from exhaust stacks

| Details | Megajoules/year | Baht/year |
|--|-----------------|-----------|
| Energy consumption level before project implementation | 18,155,509 | 2,386,223 |
| Energy consumption level after project implementation | 14,043,916 | 1,845,826 |
| Energy savings | 4,111,594 | 540,397 |
| Investment | 289,000 | THB |
| Payback period | 0.53 | Year |

Sahagreen Forest Company Limited

1.Project: Installation of Inverter for Cooling Fan to Control Cooling Water Temperature

Project Description: Installation of an inverter to reduce electricity consumption of the cooling fan.

Project Location: Cooling Tower

| Energy consumption before project implementation | 126,855 | 537,865 |
|--|---------|---------|
| Energy consumption after project implementation | 58,874 | 244,535 |
| Energy savings | 67,981 | 293,330 |
| Investment cost | 143,773 | THB |
| Payback period | 0.59 | Year |

2.Project: Transition to Gravity-Based Raw Water Refilling Process

Project Description: Modification of the raw water intake process from using an electric motor to a gravity-fed system.

Project Location: Raw Water Intake Pond

| Details | kWh/year | THB/year |
|--|----------|----------|
| Energy consumption before project implementation | 43,400 | 184,016 |
| Energy consumption after project implementation | 0 | 0 |
| Energy savings | 43,400 | 184,016 |
| Investment cost | 0 | THB |



CLIMATE CHANGE MANAGEMENT

Climate change is a global challenge resulting from greenhouse gas emissions from human activities, particularly the use of fossil fuels in energy, transportation, and industrial sectors. These emissions contribute to global warming and cause severe impacts on the environment, ecosystems, and the quality of life for people worldwide. Reducing greenhouse gas emissions and adapting to climate change are therefore critical issues that all sectors must prioritize and address seriously to mitigate impacts and create long-term sustainability.

Ratch Pathana and Affiliates places high importance on reducing greenhouse gas emissions and promoting clean energy by focusing on increasing the proportion of electricity generated from renewable sources. This approach aims to reduce the impacts of climate change and support the goal of limiting global temperature increase to no more than 2 degrees Celsius (2.0°C pathway) in accordance with the United Nations Framework Convention on Climate Change at COP 21 in Paris (Paris Agreement). Furthermore, the company has established an operational plan to achieve carbon neutrality by 2050 and has set a target for net-zero emissions by 2065, aligned with Thailand's national goals

To achieve these objectives, the Board of Directors has appointed a Sustainability Committee to oversee and establish policies and strategies for greenhouse gas management. The company has formed a Greenhouse Gas Management Working Group to monitor and track operations in alignment with strategic goals and to establish practical greenhouse gas management guidelines that can be implemented at all levels of the organization. Additionally, the company focuses on promoting efficient greenhouse gas management, considering the impacts on the organization, society, and environment to maximize benefits and lead to genuine sustainability.

Greenhouse Gas Management Working Group

1. Mrs. Uthumporn Sinprajaksapol – Chairperson
2. Mr. Panuruj Pavidapa – Committee
3. Mr. Tosaporn Wimooktakorn – Committee
4. Mr. Sakdawut Jenakkarakul – Committee
5. Ms. Naichan Jongkolwanich – Committee
6. Ms. Nichannat Jansuksomboon – Committee
7. Ms. Kunanya Panyalar – Committee and Secretary



Responsibilities of the Working Group

1. Assess risks arising from climate change that affect production and business operations.
2. Propose an integrated plan for monitoring the organization's greenhouse gas emissions, both direct and indirect.
3. Propose a response plan to climate change, including developing mitigation plans for potential impacts to address these risks.
4. Propose targets and measures to reduce greenhouse gas emissions from the organization's business processes.
5. Monitor and coordinate with relevant departments in greenhouse gas management according to plans and measures to reduce greenhouse gas emissions in line with climate change management policies, as well as quality, environmental, safety, and energy conservation policies.
6. Communicate to employees at all levels, as well as stakeholders, the importance of and participation in measures to reduce greenhouse gas emissions to address climate change.
7. Report the results of greenhouse gas management operations to the Sustainability Committee.

Climate Change Management Policy

The company has established a climate change management policy to provide guidelines for conducting business operations that enable stable and sustainable growth, as follows:

1. Appointment of an organizational greenhouse gas management committee responsible for:
 - 1.1 Assessing risks arising from climate change that may impact production and business operations
 - 1.2 Proposing an integrated plan for monitoring both direct and indirect greenhouse gas emissions
 - 1.3 Proposing a climate change response plan, including developing mitigation measures to address potential impacts and manage these risks
 - 1.4 Recommending greenhouse gas emission reduction measures
2. Establishing greenhouse gas emission targets for the organization's business processes
3. Communicating to employees at all levels, as well as stakeholders, the importance of and encouraging participation in greenhouse gas emission reduction measures to address climate change

Opportunities and Challenges

Climate change presents both challenges and opportunities for the energy industry. Government policies promoting a low-carbon economy have encouraged many organizations to shift toward clean energy with increasing trends in renewable energy utilization, such as solar, wind, biomass, etc. This creates opportunities for companies to develop new technologies and generate added value through green energy project development.

Furthermore, developing robust strategies to mitigate climate change impacts helps build stakeholder confidence. If companies can adapt and implement clean energy policies effectively, they can create competitive advantages and strengthen long-term investor and consumer confidence.

Risks Arising from Climate Change

Key risk factors from climate change affecting energy production include increasingly stringent environmental laws, regulations, and requirements, including greenhouse gas reduction and adaptation to laws promoting greenhouse gas reduction and carbon credits, which may require high operational investments and budgets. Additionally, extreme climate change results in more severe and frequent natural disasters, potentially impacting production operations and energy system security.

Climate change is significantly impacting energy production, exposing fossil fuel-dependent energy businesses to multiple risks. These include investment shifts that may cause businesses with fossil fuel infrastructure investments to face challenges such as investments and electricity usage transition toward green energy. Additional challenges include initially high costs for developing new technologies, increased competition in the clean energy market that may reduce fossil fuel energy's market share, and operational disruptions from natural disasters, flooding, or severe drought.

Changes in government policies and upcoming legislation may introduce carbon taxes as a climate change management tool, resulting in higher fossil fuel energy prices. This creates pressure for businesses to invest in clean energy to adapt and reduce tax-related costs. These impacts affect energy sector businesses as carbon dioxide emission taxes increase production costs. Companies that fail to invest in clean technologies or reduce emissions may face increasing taxes and operational restrictions.

Moreover, climate volatility affects agricultural seasons and yields, potentially impacting crop production, cultivation, and harvesting. This may affect fuel costs or supply adequacy for biomass power plants that use agricultural waste materials.

Based on risk assessments and implementation of established risk management measures, monitoring operational impacts in 2024 has shown no disasters or climate change effects impacting Ratch Pathana and Affiliates



Risk Management

- Co-investment in a Solar Floating System connected to a Micro Smart Grid within the Saha Group Industrial Park, Sriracha
- Implementation of Solar Rooftop projects in the Saha Group Industrial Park, Sriracha, with greenhouse gas management targets aimed at achieving carbon neutrality by 2050
- Setting business development goals and plans to increase the proportion of electricity production from renewable energy to 15% of total production capacity according to shareholding ratio by 2030
- Establishing policies, targets, and implementing measures to reduce greenhouse gas emissions
- Strategic planning that emphasizes renewable energy development and related technologies, including assessing the impact of changing consumer behaviors, enabling the business to effectively address these challenges and create long-term sustainability
- Closely and regularly monitoring information, news, and evaluating situations

Greenhouse Gas Management Plan

The company prioritizes greenhouse gas management to reduce environmental impact and support organizational sustainability goals. The following plan has been established:

1. Increase Renewable Energy Proportion – Promoting energy from renewable sources such as solar, wind, and biomass to replace fossil fuel energy usage
2. Improve Energy Efficiency – Implementing technologies that reduce energy consumption in the company's production processes and operations
3. Develop Greenhouse Gas Emission Reduction Projects The company supports projects that help reduce greenhouse gas emissions, such as forest planting, waste recycling, and clean technology development in production processes. Additionally, the company has collaborated with the National Metal and Materials Technology Center (MTEC) NSTDA to develop appropriate technology assessment and investment approaches to support the industrial sector in decision-making regarding Bio-energy with Carbon Capture and Storage (BECCS) technology in Thailand. Furthermore, the company continuously studies and monitors advancements in green energy technologies, such as:
 - o Small Modular Reactors (SMRs)
 - o Green Hydrogen Technology
 - o Carbon Capture and Storage (CCS)
 - o Battery Energy Storage System (BESS)

2.Establishment of Concrete Policies and Measures

The company has clearly defined guidelines and policies for greenhouse gas (GHG) management to ensure effective implementation across all departments. Additionally, a dedicated Greenhouse Gas Management Task Force has been established to oversee operations, raise awareness within the organization, and promote employee participation in addressing climate change challenges.

3.Carbon Neutrality Roadmap

The company has set targets and strategies to reduce energy consumption and greenhouse gas emissions in alignment with government policies. Our long-term goal is to achieve carbon neutrality by 2050, demonstrating our strong commitment to sustainable development and continuous improvement in operational practices

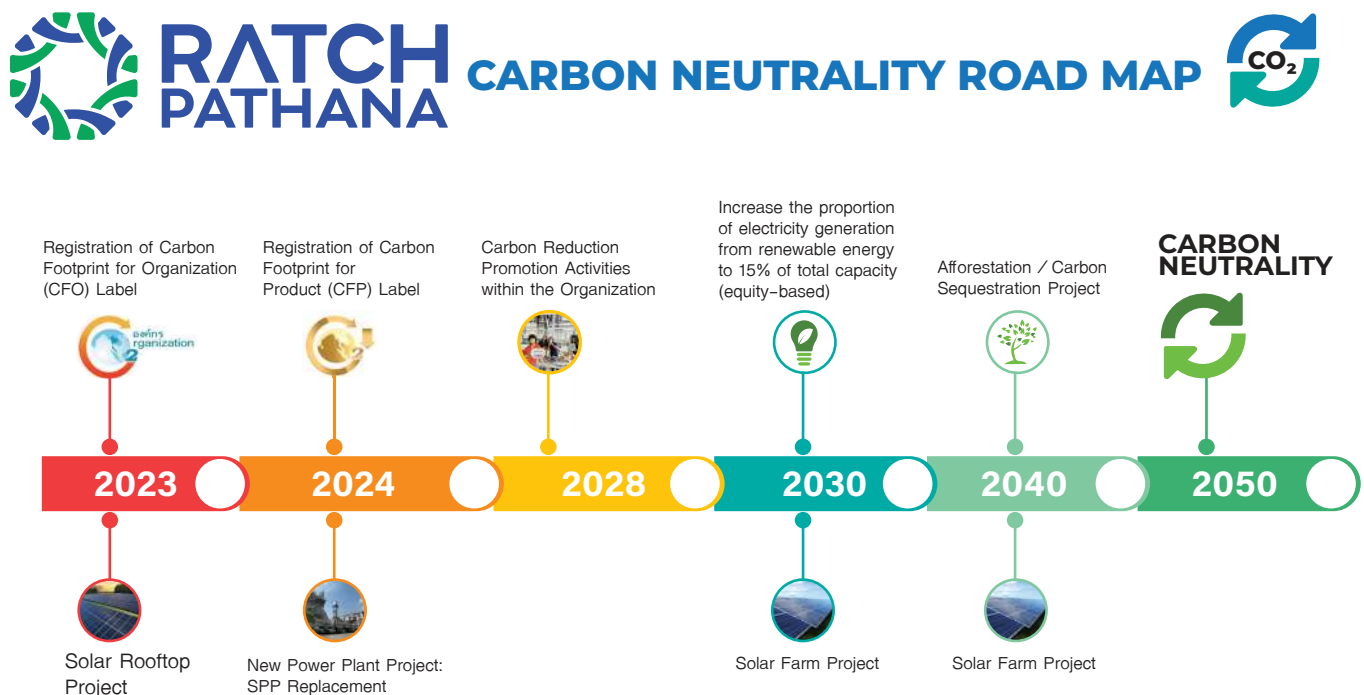
4. Monitoring and Reporting Performance

The company conducts transparent and verifiable measurement and monitoring of greenhouse gas emission reductions. This includes preparing the Carbon Footprint for Organization (CFO) report to track the volume of greenhouse gas emissions and removals associated with business activities, covering Scope 1, 2, and 3 emissions of Ratch Pathana Energy Public Company Limited and its subsidiaries from 2022 to the present.

Furthermore, the company has developed and obtained certification for the registration of the Carbon Footprint of Product (CFP) for electricity and steam products, reinforcing our commitment to environmentally responsible business operations.



Greenhouse Gas Reduction Management Roadmap



The company has established sustainability targets and initiatives that are seamlessly integrated into its business operations. Sustainability is a core component of the company's strategic growth plan, which focuses on the generation and distribution of small-scale renewable energy both domestically and across Southeast Asia. The company aims to expand its generation capacity to 400 megawatts and increase the proportion of renewable energy generation to 15% of total installed capacity (based on equity share) by 2030. As of the end of 2024, the company successfully increased its renewable energy generation share to 19% of total installed capacity (based on equity share), achieving this target ahead of schedule.



Greenhouse Gas Reduction Measures

1. Enhancing Energy Efficiency

- o Improve energy efficiency through the adoption of advanced technologies and optimized energy management practices.

2. Investing in Clean Energy and Environmentally Friendly Businesses

- o Focus on developing clean energy solutions and increasing investments in renewable energy generation.

3. Promoting Carbon Offset Initiatives

- o Develop innovations in renewable energy and greenhouse gas reduction technologies.
- o Implement corporate greenhouse gas reduction initiatives and collaborate with government agencies and strategic partners to promote carbon reduction activities.

Greenhouse Gas Emissions of Ratch Pathana Energy Public Company Limited and Subsidiaries for the Year 2024 (Unit: tCO₂eq)

| Operational Scope | Unit | SCG | SGN | SGF | Total |
|--------------------------------|------------------------|-------------|-------------|-------------|------------|
| Scope 1 | tCO ₂ eq | 347,441.48 | 4,185.78 | 2,323.76 | 353,952.00 |
| Scope 2 | tCO ₂ eq | 144.1287343 | 413.3415901 | 58.39912484 | 616.00 |
| Scope 3 | tCO ₂ eq | 99,318.36 | 170.2349383 | 65.37346739 | 99,554.00 |
| Scope 1 +2 | tCO ₂ eq | 347,585.60 | 4,599.12 | 2,382.15 | 354,568.00 |
| Scope 1 +2+3 | tCO ₂ eq | 446,903.96 | 4,769.35 | 2,447.53 | 454,122.00 |
| Carbon intensity (Scope 1+2) | kgCO ₂ /kWh | 0.3415 | 0.0304 | 0.0380 | 0.2878 |
| Carbon intensity (Scope 1+2+3) | kgCO ₂ /kWh | 0.4391 | 0.0315 | 0.0390 | 0.3686 |

Greenhouse Gas Emissions of Ratch Pathana Energy Public Company Limited and Subsidiaries from 2022 to 2024

| Scope | Greenhouse | | | Unit |
|---|------------------|--------------|--------------|------------------------|
| | 2022 (Base Year) | 2023 | 2024 | |
| Direct Greenhouse Gas Emissions (Scope 1) | 533,254.00 | 474,332.00 | 353,952.00 | TonCO ₂ e |
| Indirect Greenhouse Gas Emissions from Energy Consumption (Scope 2) | 463.00 | 512.00 | 616.00 | TonCO ₂ e |
| Indirect Greenhouse Gas Emissions from Other Activities (Scope 3) | 140,022.00 | 134,057.00 | 99,554.00 | TonCO ₂ e |
| Total Scope 1 & 2 | 533,717.00 | 474,844.00 | 354,568.00 | TonCO ₂ e |
| Total Scope 1 & 2 & 3 | 673,739.00 | 608,901.00 | 454,122.00 | TonCO ₂ e |
| Electricity and Steam Production | 1,513,930.87 | 1,639,337.24 | 1,232,096.19 | MWh |
| Carbon intensity (Scope 1+2) | 0.3525 | 0.2897 | 0.2878 | kgCO ₂ /kWh |
| Carbon intensity (Scope 1+2+3) | 0.4450 | 0.3714 | 0.3686 | kgCO ₂ /kWh |

In 2024, Ratch Pathana and Affiliates total greenhouse gas emissions, including both direct and indirect emissions (Scope 1 and Scope 2), amounted to 354,568.00 tons of CO₂ equivalent (TonCO₂e). When accounting for indirect emissions (Scope 3), the total greenhouse gas emissions reached 454,122.00 TonCO₂e.

Compared to the baseline year 2022 and 2023, Ratch Pathana and Affiliates achieved a significant reduction in greenhouse gas emissions. A key factor contributing to this decrease was the reduction in electricity generation capacity from natural gas by Ratch Pathana Energy Public Company Limited, from 214 MW to 154.20 MW. At the same time, steam production capacity increased from 96 tons per hour (TPH) to 110 tons per hour (TPH).

Carbon intensity

The company prioritizes reducing its environmental impact by systematically managing greenhouse gas emissions. This focus has enabled a significant reduction in carbon intensity, measured as greenhouse gas emissions per unit of production, when compared to the baseline year (2022).

In 2024, Ratch Pathana and Affiliates carbon intensity for Scope 1 and Scope 2 was 0.2878 kgCO₂/kWh. The overall carbon intensity, including Scope 1, Scope 2, and Scope 3, was 0.3686 kgCO₂/kWh.

When compared to the baseline year (2022), the values have decreased, with figures of 0.3525 kgCO₂/kWh and 0.4450 kgCO₂/kWh, respectively. Additionally, the company's carbon intensity is lower than the average of the power generation industry in Thailand, which stands at 0.5986 kgCO₂/kWh. This reflects an improvement in the efficiency of energy production processes that are more environmentally friendly.

(Reference*<https://thaicarbonlabel.tgo.or.th/tools/files.php?mod=Y0hKdIplVmpkSE5mWlcxcGMzTnBiMjQ9&type=WDBaSiRFVIQ&files=Tnc9PQ>)

To ensure the accuracy and transparency of the greenhouse gas emission data, the company has undergone a verification process by Bureau Veritas Certification (Thailand) Co., Ltd. and is currently in the process of applying for Carbon Footprint Organization (CFO) certification from the Thailand Greenhouse Gas Management Organization (TGO). Managing greenhouse gases is part of the company's commitment to sustainable business operations and demonstrates its dedication to reducing environmental impacts and addressing climate change.

Corporate Greenhouse Gas Emission Reduction Promotion Program

The company has been continuously implementing greenhouse gas emission reduction projects. In 2024, the following initiatives were carried out:

- **The first floating solar system at the Saha Group Industrial Park in Si Racha,**

Thailand, serves as a pioneering model for utilizing water reservoirs for energy generation. This innovative installation, with a capacity of 478.8 kilowatts, generates 649,367 kWh of electricity annually, reducing CO₂ emissions by 367 metric tons equivalent per year. The project aims to set a standard for enhancing the quality of life within Thai industrial parks by leveraging renewable energy.

- **Solar Rooftop Power Generation Project**

In 2024, the company sold electricity generated from its Solar Rooftop systems to factories within the Saha Group Industrial Park, with a total installed capacity of 5.15 MW. This initiative is expected to reduce greenhouse gas emissions by over 5,337 tons of CO₂ equivalent per year, in alignment with the company's plan to develop and expand its renewable energy business. The goal is to reduce greenhouse gas emissions by more than 6,000 tons of CO₂ equivalent annually.



- **Renewable Energy Certification (REC)**

The company has registered for the International Renewable Energy Certificate (I-REC) to offer I-REC rights to organizations seeking to demonstrate their commitment to using electricity generated from renewable energy. This initiative plays a crucial role in combating global warming by reducing greenhouse gas emissions. The project contributes to the development of renewable energy production and consumption within the country, aligning with the growing green energy market and the transition towards a low-carbon society. It also encourages the use of environmentally friendly, renewable energy sources, reaffirming the company's dedication to transitioning to a clean and sustainable energy system for the future

In 2024, Ratch Pathana and Affiliates delivered Renewable Energy Certificates (RECs), a key initiative in the mission to reduce greenhouse gas emissions. This was achieved through the implementation of projects that resulted in a total reduction of 62,853 metric tons of carbon dioxide equivalent (tCO2eq)

| Producer | Installed Capacity (MW) | REC Delivered (Units) | Greenhouse Gas Reduction (tCO2 eq) |
|--------------------------------------|-------------------------|-----------------------|------------------------------------|
| Sahacogen Green Biomass Power Plant | 67,368 | 65,000 | 38,909 |
| Sahagreen Forest Biomass Power Plant | 56,258 | 40,000 | 23,944 |
| Total | 123,626 | 105,000 | 62,853 |



- **Implementation of Electric Vehicles for Sustainability**

In 2024, the company launched a pilot project to introduce Battery Electric Vehicles (BEVs) for operations within the company and its subsidiaries. The objective was to reduce greenhouse gas emissions and support the transition to clean energy. Electric vehicles were trialed in various operations, including internal transportation, employee travel, and field operations. The results from the pilot showed a reduction in carbon dioxide emissions by 24,436.23 kgCO2eq, compared to traditional gasoline-powered vehicles.

In addition, the company installed electric vehicle charging stations at its offices and factories to accommodate employee usage and promote a clean energy culture. Furthermore, studies have been conducted to explore expanding the use of electric vehicles in the future, aligning with the company's goal to achieve Net Zero carbon emissions.



• Waste Bank Project for Environmental Sustainability

Sahacogen Green Co., Ltd. and Sahagreen Forest Co., Ltd. have initiated the Waste Bank Project for Environmental Sustainability to raise employee awareness about environmental care through waste segregation at both offices and factories. The project also encourages employees to donate or exchange household waste for goods, which is then sold to recyclers. The goal is to involve employees in reducing waste and mitigating global warming by lowering greenhouse gas emissions. In 2024, the project contributed to a reduction of 549.92 kgCO₂eq in greenhouse gas emissions.



• Ting to Trash Project

Ratch Pathana Energy Public Company Limited participated in the “Ting to Trash” project in collaboration with the Securities and Exchange Commission (SEC) and the Listed Companies Association. The initiative aims to educate listed companies on proper waste separation methods and promote a corporate culture focused on reducing greenhouse gas emissions. The program encourages employee participation in proper waste segregation and disposal practices. In 2024, the project successfully contributed to a reduction of 22,425.51 kg CO₂ equivalent in greenhouse gas emissions.



• Carbon Neutral Event Exhibition

In 2024, the company organized two exhibitions to showcase its achievements and corporate image: the 2024 Saha Group Fair and the “28 Years of Saha Cogeneration Advancing Towards Sustainable Ratch Pathana” exhibition. The booth design emphasized waste reduction principles, utilizing natural materials and minimizing production waste. Additionally, items used during the exhibition were designed for reuse. These efforts helped reduce carbon dioxide emissions by 15 tons CO₂ eq



Forest and Endangered Species Conservation Project

The trees planted on the company’s property as part of the Forest and Endangered Species Conservation Project cover a total area of 63 rai, or 100,800 square meters, aimed at preserving forest and rare plant species while enhancing the greenery of the area. Over 50 different species of trees have been planted in this initiative. In 2024, the company organized activities to plant an additional 300 trees in the designated area, bringing the total number of trees to over 1,500. These trees are approximately 5–10 meters tall and include species such as Pah-Yung, Yang-Na, Daeng, Padu-Ban, Yom-Hom, Yom-Hin, Black Neem, Chan-Pa, Kaew-Jao-Chom, Jik-Na, Bear-Civet, Si-Trang, Nang-Phaya-Ka-Hlong, Eucalyptus, and Katin-Tep-Narong, among others. According to the 2024 survey, the trees in this project have absorbed a total of 136,238 kgCO₂eq or 136.228 metric tons of CO₂ eq.



BIODIVERSITY AND CORPORATE SUSTAINABILITY

Biodiversity is a critical factor in creating ecological balance, which directly impacts an organization's long-term business operations. The abundance of living organisms in ecosystems supports the natural resources that businesses depend on and plays a vital role in reducing environmental risks such as climate change, natural disasters, and raw material shortages.



Ratch Pathana Energy Public Company Limited and its subsidiaries, including other operational sites such as biomass purchasing and processing centers and fast-growing tree plantations for energy, are in the Saha Group Industrial Park and areas designated for factory operations and agricultural activities according to ministerial regulations for provincial planning. The factory areas have been specifically developed for industrial purposes. Based on environmental impact assessment studies and site surveys, there are no forest resources, wildlife, terrestrial animals, or aquatic animals in these areas. Therefore, the construction and operation of the company's projects have minimal impact on both terrestrial and aquatic biological resources.

Nevertheless, the company recognizes and prioritizes the care of natural resources and the environment in surrounding areas, focusing on community engagement and stakeholder participation to enhance knowledge and understanding of natural resource conservation, biodiversity, and sustainable ecological balance

Biodiversity Policy

The company recognizes the importance of biodiversity and the impact of its operations on ecosystems. The company has established guidelines for biodiversity management under its environmental sustainability policy as follows:

- 1. Implement Environmental Management** by complying with relevant legal requirements and regulations, seeking approaches to enhance environmental management efficiency and quality control, and preserving ecosystems and biodiversity by encouraging all stakeholder groups to recognize its importance, benefiting society and humanity sustainably.

2. **Use Resources Efficiently** by promoting the optimal use of all types of resources and seeking approaches and methods to reduce the use of limited resources for maximum efficiency.
3. **Implement Climate Management** by strictly managing greenhouse gases in accordance with relevant laws and regulations, as well as seeking measures to reduce greenhouse gas emissions and methods to respond to climate change to prevent and reduce potential impacts on business operations.

Biodiversity Risk Assessment

The Ratch Pathana and Affiliates is committed to conducting risk assessments related to biodiversity in various projects, considering potential impacts both within and near the company's project areas, including areas where the company conducts biodiversity restoration or protection that may be affected by projects.

The company uses the Environmental Impact Assessment (EIA) process to assess biodiversity risks, which considers and designs projects to reduce potential impacts on ecosystems, particularly in terms of green area restoration, water and waste management, and air pollution reduction. Additionally, there is collaboration with communities and environmental organizations to create positive impacts on biodiversity.

This biological impact assessment process also includes developing a Biodiversity Action Plan (BAP) for all key company sites to control and manage potential biological risks in the future.

The biodiversity impact assessment through the Environmental Impact Assessment (EIA) process is under the supervision of government agencies, namely the Ministry of Natural Resources and Environment, in accordance with Section 48 of the National Environmental Quality Promotion and Conservation Act (No. 2) B.E. 2561 (2018). The company discloses the assessment results in the Environmental Impact Assessment (EIA) report as required by law.

Reference: <https://eia.onep.go.th/eia/detail?id=12336>

Biodiversity Operations

1

Planting Bamboo, Restoring Forests, Creating Livelihoods Project and Biodiversity

The company has emphasized social and environmental responsibility by integrating operations with the government's "Pracharath" (Civil State) strategy for forest restoration and conservation through the "Planting Bamboo, Restoring Forests, Creating Livelihoods" project. This is a collaboration between the company, the Forest Resource Management Office 3 (Lampang), agencies under the Royal Forest Department, Ministry of Natural Resources and Environment, and local residents in Thung Phueng Subdistrict, Chae Hom District, Lampang Province. The project focuses on restoring watershed forests while sustainably promoting occupations for communities.

The "Planting Bamboo, Restoring Forests, Creating Livelihoods" project is a pilot project covering over 1,000 rai (approximately 160 hectares) under the policy of "Restoring Forests for Sustainable Development." The government has allocated areas in reforestation plots for people to make a living, while the company provides budget support for procuring bamboo seedlings for community planting, as well as training on bamboo planting, maintenance, and propagation to ensure efficient use of natural resources

Project Results

- 2018: Donated bamboo seedlings, provided training, and implemented bamboo planting in 400 rai (64 hectares) of degraded forest land, valued at 1,026,667 baht to serve as a model for forest restoration using bamboo.
- 2019–2020: Distributed over 40,000 bamboo seedlings valued at over 1,000,000 baht under the project "Returning Bamboo to Forests for Occupational Development and Watershed Restoration", focusing on distributing bamboo species to various areas and creating community participation in forest care.
- 2021–2023: With over 300 households participating in the project, and continued bamboo propagation

and additional planting in Chae Hom and Wang Nuea Districts, which are areas requiring ecosystem restoration for greater abundance.

- 2024: The company continuously monitors the growth of bamboo planted in the area, including analysis of increased ecosystem fertility. The first batch of planted bamboo, now 6 years old, can be harvested for products such as bamboo shoots and bamboo timber for household use, including generating income for households and further developing the community-level economy

Benefits

Increased green areas,
restoring over



Reduced unemployment,
creating jobs for

100
households

Created food sources
from bamboo shoots
and bamboo products



Promoted local industries
such as furniture production,
chopsticks, wickerwork,
and bamboo product
processing



Future Goals and Approaches

1. **Expand bamboo planting areas** in degraded forest zones for greater coverage, while developing bamboo species suitable for local environmental conditions.
2. **Develop community networks** capable of managing bamboo resources efficiently and sustainably.
3. **Create added value for bamboo products** such as processed bamboo timber, processed bamboo shoots, and other industries to generate stable income for communities.
4. **Monitor and evaluate ecosystems** continuously to ensure that bamboo planting helps restore forests and positively affects biodiversity.

Connection to Biodiversity

- **Ecosystem Restoration:** Bamboo planting helps prevent soil erosion, maintains moisture, and creates habitats for wildlife.
- **Increasing Green Areas:** Reduces the impact of deforestation and helps increase the rate of carbon dioxide absorption.
- **Promoting Sustainable Resource Use:** Bamboo is an economic crop that can be used for various purposes without impacting the environment.

Supporting Sustainable Development Goals (SDGs)

This project helps achieve several United Nations Sustainable Development Goals, including:

- **Goal 1:** End poverty through sustainable job creation
- **Goal 2:** Food security, by promoting food crop cultivation
- **Goal 6:** Sustainable water management, by helping preserve watershed sources
- **Goal 15:** Restoration of terrestrial ecosystems and increased biodiversity



The “Planting Bamboo, Restoring Forests, Creating Livelihoods” project not only helps restore degraded forest areas and increase biodiversity but also promotes sustainable community economies, helping people secure stable occupations and income while developing society and the environment in balanced growth.



2 Forest Species and Rare Plant Conservation Project

Ratch Pathana and Affiliates power plants prioritize natural resource conservation alongside environmentally friendly business operations, focusing on increasing green areas and maintaining forest areas to preserve biodiversity and create ecological balance in project operation areas.

The Forest Species and Rare Plant Conservation Project began in 2554 (2011) with the objective of collecting and conserving valuable plant species, including rare or endangered local species, creating learning resources for employees and related parties to gain knowledge about plant species, providing recreation areas, and increasing green spaces for employees and the surrounding environment, promoting a balanced ecosystem. Experts from the Royal Forest Department serve as consultants for the project implementation.

Currently, the project features over 50 species of forest and rare plants, totaling more than 1,500 trees, in the company's 63-rai (10.08 hectares) area or 100,800 square meters. Most are trees with heights of approximately 5–10 meters. Examples of important conserved plant species include Siamese Rosewood, Yang Na, Chingchan Daeng, Pradu Ban, Yom Hom, Yom Hin, Black Neem, Chan Pha, Kaeo Chao Chom, Chik Na, Mi Men, Sri Trang, and Nang Phaya Kalong.

From the operations, small wildlife such as birds, squirrels, and red ants have come to inhabit the area. Various mushroom species and natural seedlings have also been increasing every year, indicating ecosystem abundance. Additionally, dead trees are continuously replaced to maintain a healthy forest condition.

In 2024, a survey of greenhouse gases sequestered by trees in the project found that these plant species help absorb greenhouse gases up to 136,238 kgCO₂e, which is an important factor in reducing the impact of global warming and enhancing the organization's environmental sustainability.



Water Resources and Ecosystem Restoration

The Ratch Pathana and Affiliates emphasizes the conservation of biodiversity both on land and in water sources. Besides plant conservation, the company also continuously implements water resource restoration projects. Sahagreen Forest Company Limited, in collaboration with the Kamphaeng Phet Freshwater Aquaculture Research and Development Center under the Department of Fisheries, organizes the “Clear Canal, Clean Water, Environmental Care” project, releasing more than 3,000 freshwater fish into nearby public water sources annually.

This project aims to restore freshwater aquatic animal populations, maintain water ecosystem balance, and promote the diversity of aquatic species to sustain the ecosystem.

Community Communication and Engagement

The company emphasizes raising awareness and understanding about biodiversity through continuous community communication and engagement. It has installed informational signs within project areas to provide information about natural resource conservation approaches, benefits derived from ecosystems, and the role of all sectors in environmental care.

Training and information dissemination are provided to employees and communities regarding biodiversity management. Additionally, the company organizes educational activities and community feedback sessions to strengthen cooperation in sustainable biodiversity conservation.



GRI CONTENT INDEX

| Disclosure | Description | Page |
|--------------------------------------|--|---------|
| GRI 102 : General Disclosures | | |
| Organizational Profile | | |
| GRI 102-1 | Name of the organization | 4 |
| GRI 102-2 | Activities, brands, products, and services | 4 |
| GRI 102-3 | Location of headquarters | 4 |
| GRI 102-4 | Location of operations | 4 |
| GRI 102-5 | Ownership and legal form | 4 |
| GRI 102-6 | Markets served | 4 |
| GRI 102-7 | Scale of the organization | 4,69-70 |
| GRI 102-8 | Information on employees and other workers | 69-71 |
| GRI 102-9 | Supply chain | 20 |
| GRI 102-10 | Significant changes to the organization and its supply chain | 5 |
| Strategy | | |
| GRI 102-14 | Statement from senior decision-maker | 2 |
| GRI 102-15 | Key impacts, risks, and opportunities | 39-48 |
| GRI 102-55 | Sustainability Policy and Strategy | 10-15 |
| Ethics and Integrity | | |
| GRI 102-16 | Values, principles, standards, and norms of behavior | 3 |
| GRI 102-17 | Mechanisms for advice and concerns about ethics | 53-54 |

GRI CONTENT INDEX

| Disclosure | Description | Page |
|--------------------------------|--|---------|
| Governance | | |
| GRI 102-28 | Evaluating the highest governance body's performance | 4,36-38 |
| GRI 102-29 | Identifying and managing economic, environmental, and social impacts | 9,18-19 |
| GRI 102-30 | Effectiveness of risk management processes | 39-48 |
| GRI 102-31 | Review of economic, environmental, and social topics | 9 |
| Stakeholder engagement | | |
| GRI 102-40 | List of stakeholder groups | 28-31 |
| GRI 102-41 | Collective bargaining agreements | |
| GRI 102-42 | Identifying and selecting stakeholders | |
| GRI 102-43 | Approach to stakeholder engagement | |
| GRI 102-44 | Key topics and concerns raised | |
| Reporting practice | | |
| GRI 102-45 | Entities included in the consolidated financial statements | 1,16-19 |
| GRI 102-46 | Defining report content and topic Boundaries | |
| GRI 102-47 | List of material topics | |
| GRI 102-48 | Restatements of information | |
| GRI 102-49 | Changes in reporting | |
| GRI 102-50 | Reporting period | |
| GRI 102-51 | Date of most recent report | |
| GRI 102-52 | Reporting cycle | |
| GRI 102-53 | Contact point for questions regarding the report | |
| GRI 200 : Economic | | |
| GRI 201 : Economic Performance | | |
| GRI 103 : | Management Approach | 62-63 |
| GRI 201-1 | Direct economic value generated and distributed | |

GRI CONTENT INDEX

| Disclosure | Description | Page |
|---------------------------|---|---------|
| GRI 205 : Anti-corruption | | |
| GRI 103 : | Management Approach | 49-54 |
| GRI 205-3 | Confirmed incidents of corruption and actions taken | |
| GRI 300 : Environmental | | |
| GRI 301: Materials | | |
| GRI 103 : | Management Approach | 124-125 |
| GRI 301-1 | Materials used by weight or volume | |
| GRI 301-2 | Recycled input materials used | 105 |
| GRI 302: Energy | | |
| GRI 103 : | Management Approach | 123-130 |
| GRI 302-1 | Energy consumption within the organization | |
| GRI 302-3 | Energy intensity | |
| GRI 302-4 | Reduction of energy consumption | |
| GRI 303 : Water | | |
| GRI 103 : | Management Approach | 110-114 |
| GRI 303-1 | Water withdrawal by source | |
| GRI 303-2 | Water sources significantly affected by withdrawal of water | |
| GRI 303-3 | Water recycled and reused | |
| GRI 304 : Biodiversity | | |
| GRI 103 : | Management Approach | 141-145 |
| GRI 304-2 | Significant impacts of activities, products, and services on biodiversity | |
| GRI 305 : Emissions | | |
| GRI 103 : | Management Approach | 131-140 |
| GRI 302-1 | Direct (Scope 1) GHG emissions | 137-138 |
| GRI 302-3 | Energy indirect (Scope 2) GHG emissions | |
| GRI 302-4 | GHG emissions intensity | |
| GRI 302-3 | Reduction of GHG emissions | |
| GRI 302-4 | Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions | 118-120 |

GRI CONTENT INDEX

| Disclosure | Description | Page |
|---|---|---------|
| GRI 306 : Effluents and Waste | | |
| GRI 103 : | Management Approach | 110-118 |
| GRI 306-1 | Water discharge by quality and destination | |
| GRI 306-2 | Waste by type and disposal method | |
| GRI 306-5 | Water bodies affected by water discharges and/or runoff | |
| GRI 307 : Environmental Compliance | | |
| GRI 103 : | Management Approach | 109-110 |
| GRI 307-1 | Non-compliance with environmental laws and regulations | |
| GRI 308 : Supplier Environmental Assessment | | |
| GRI 103 : | Management Approach | 21-27 |
| GRI 308-1 | New suppliers that were screened using environmental criteria | |
| GRI 400 : Social | | |
| GRI 401 : Employment | | |
| GRI 103 : | Management Approach | 69-73 |
| GRI 401-1 | New employee hires and employee turnover | |
| GRI 403 : Occupational Health and Safety | | |
| GRI 103 : | Management Approach | 89-96 |
| GRI 403-2 | Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities | |
| GRI 403-3 | Workers with high incidence or high risk of diseases related to their occupation | |
| GRI 404 : Training and Education | | |
| GRI 103 : | Management Approach | 79-88 |
| GRI 404-1 | Average hours of training per year per employee | |
| GRI 404-2 | Programs for upgrading employee skills and transition assistance programs | |
| GRI 404-3 | Percentage of employees receiving regular performance and career development reviews | |

GRI CONTENT INDEX

| Indicator | Description | Page |
|--|--|---------|
| Human Right Assessment | | |
| GRI 412-1 | Operations that have been subject to human right reviews or impact assessment | 64-68 |
| GRI 412-2 | Employee training on human right policies or procedures | |
| Local Community | | |
| GRI 413-2 | Operations with Significant actual and potential negative impacts on local Communities | 97-108 |
| GRI 414 : Supplier Social Assessment | | |
| GRI 103 : | Management Approach | 21-26 |
| GRI 414-1 | New suppliers that were screened using social criteria | |
| GRI 419 : Socioeconomic Compliance | | |
| GRI 103 : | Management Approach | 64-65 |
| GRI 419-1 | Non-compliance with laws and regulations in the social and economic area | 68,108 |
| GRI-G4 Electric Utilities Sector Disclosures | | |
| EU 1 | Installed capacity, broken down by primary energy source and by regulatory regime | 4 |
| EU 5 | Allocation of CO2e emissions allowances or equivalent, broken down by carbon trading framework | 137-138 |
| EU 10 | Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime | 125-127 |
| EU 11 | Average generation efficiency of thermal plants by energy source and by regulatory regime | |
| EU 21 | Disaster/Emergency Planning and Response | 39-48 |
| EU 30 | Average plant availability factor by energy source and by regulatory regime | 127 |