ESG & BCG FOR SUSTAINABILITY

TPI Polene Power Public Company Limited

Sustainability Report 2023

TPIPP Commits to ESG Policy for Decarbonization and Sustainable Growth

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Our Business

Environmentally Friendly Operational Strategy

Strategies for Creating Social Acceptance

Strategies for Growth under Good Governance

VISION

To become a leader in efficient renewable energy as a Clean and Green Energy Producer focusing on developing technology and innovation in all dimensions of working, and as the largest waste disposal plant in the country and in the ASEAN region for greenhouse gas emissions to be zero or negative, conducting business responsibly for sustainable growth in economic, environmental, and social dimensions under good corporate governance.

ENVIRONMENTAL DIMENSION

To focus on developing a low-carbon economy and society, aiming to achieve carbon neutrality by 2037, conducting business using circular economy policies, increasing energy efficiency, enhancing the utilization of renewable energy, appropriately addressing issues of solid waste, waste, and water consumption, paying attention to biodiversity and soil degradation, establishing an efficient transportation system, reducing the impact of operations throughout the value chain, and responding to all stakeholders in a balanced manner.

SOCIAL DIMENSION

To conduct business responsibly, prioritize all stakeholders in a balanced manner, operate with respect for and protection of human rights across the value chain, including employees, suppliers, customers, and social communities, generate returns for shareholders, ensure occupational health and safety as well as a positive working environment, continuously manage and develop the abilities and skills of personnel, attend to the health and safety of customers, evaluate suppliers based on societal criteria, provide clear product labeling information, respect personal data, support youth education, and engage in activities that contribute to creating value and enhancing the quality of life in communities and society for sustainable

GOVERNANCE DIMENSION

To adhere to the principles of accuracy and compliance with relevant laws and regulations under the Code of Conduct and business ethics, it is essential to have an operating framework based on the principles of good corporate governance. This includes transparently disclosing information and operating results, comprehensively managing risks, maintaining flexibility in management, implementing anti-corruption measures, and establishing a procurement system that is transparent and fair. Additionally, it is crucial to prohibit the use of inside information for personal gain and ensure the security of data and information systems.

Message from the Chairman(2-22)

The world is currently grappling with increasingly severe climate change, encompassing the global warming situation and the El Niño phenomenon, wherein equatorial currents accumulate heat beyond their limits, leading to unpredictable disturbances in the climate. Consequently, natural disasters such as floods, droughts, forest fires, storms, and epidemics occur more frequently and with greater severity, resulting in widespread loss of biodiversity and increased disasters globally. United Nations Secretary-General, Antonio Guterres, emphasized the urgency of the climate crisis during his official announcement at the COP28 UN Climate Change Conference in Dubai, United Arab Emirates, stating, “The era of global warming has ended; the era of global boiling has arrived.” This underscores the critical need for urgent action to address the climate problem.

Additionally, there is the issue of global geopolitical tensions that are accelerating the worldwide transition towards counter-globalization or deglobalization. This has led to division and the imposition of trade barriers, causing product prices to become high and volatile, thereby reducing competitive ability. Consequently, structural changes are occurring in the world economy.

The Company is the largest waste-to-energy power plant operator in Thailand and the ASEAN region, and it has the largest community waste disposal plant in Thailand, located in the same area, which is the largest in the world. It has identified an opportunity for business growth while adapting to a business model driven by sustainable development and technology to continue advancing continuously to address the climate change and economic challenges the world is facing. The Company operates by producing electricity from clean energy and is committed to managing risks throughout the supply chain for sustainable development, aiming to reduce greenhouse gas emissions and mitigate the impact of climate change. It also conducts business with a commitment to social and environmental responsibility, participating in efforts to solve global warming problems and limit the global temperature rise to no more than 1.5 degrees Celsius in accordance with the Paris Agreement.

The Company's electricity production process utilizes renewable energy derived from processing municipal waste into fuel. This aids in reducing greenhouse gas emissions from community waste landfills. Additionally, the Company introduces clean energy from sources such as solar and wind energy to replace fossil fuels, thereby reducing electricity production costs and greenhouse gas emissions. Consequently, the Company fully aligns with the country's energy management development plan, making it a CLEAN & GREEN POWER COMPANY.

In its endeavor towards a low-carbon economy and society, the Company is targeting carbon neutrality by 2037 and plans to substitute its coal-fired power plants with a fully waste-fueled power plant, slated for completion by 2025, thereby demonstrating its dedication to combating climate change. Additionally, in 2023, the Company initiated the separation of municipal waste, converting it into waste fuel rather than resorting to landfill disposal, resulting in over 2.77 million tons of waste processed and a reduction of greenhouse gas emissions from landfills by up to 6.43 million tons of CO2 equivalent.

In addition, in 2023, the Company participated in the Climate Change Management model project of the Stock Exchange of Thailand. It began using the Task Force on Climate-related Financial Disclosures (TCFD) guidelines as a framework for disclosing information related to Climate Change Management, aiming to enhance the disclosure of financial information to stakeholders and investors, and to cooperate in supporting its activities in undertaking comprehensive Climate Change Management efforts, while continually adhering to international operating frameworks and standards.

The Company has a policy of investing in environmentally friendly projects to provide efficient Climate Change Management and develop strategies to mitigate climate change risks. This aims to achieve the long-term goal of reducing greenhouse gas emissions and creating opportunities for sustainable business development. In collaboration with stakeholders across the value chain, from upstream to downstream, the Company can foster endless business growth.

In 2023, the Company operated its business with an emphasis on the environment and society, including good corporate governance, thereby creating value and benefits for all stakeholders, both in the environment and society as a whole. The Company is attentive to the impacts that have occurred or are expected to occur from business operations, giving it the opportunity to receive increased income and profits, and to exist in the long term. By operating a business driven by sustainable development, the Company creates the potential for growth and increases the production of high-quality, environmentally friendly goods. Finally, investors and shareholders will receive returns from profits and dividends from investments in businesses that the Company prioritizes for sustainable ESG practices.

On behalf of the Board of Directors of TPI Polene Power Public Company Limited, we express our sincere gratitude to all stakeholders for their ongoing trust in the Company's operations. The Company remains steadfast in its dedication to conducting business with social responsibility as its primary focus. This commitment is aimed at achieving the objective of fostering sustainable growth across corporate, national, and international levels, thereby collectively and continually creating benefits for the economy, society, and environment as we strive towards a sustainable future together.

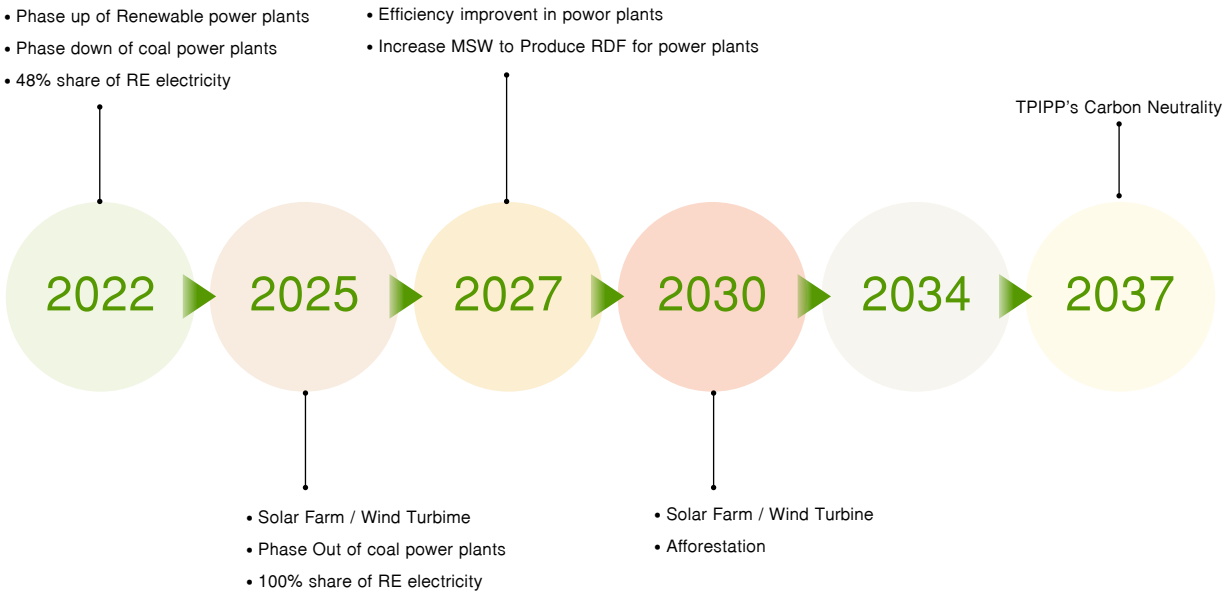
(Mr. Prachai Leophairatana)
Chairman

“CLEAN & GREEN ENERGY PRODUCER FOR OUR HEALTHY COUNTRY”

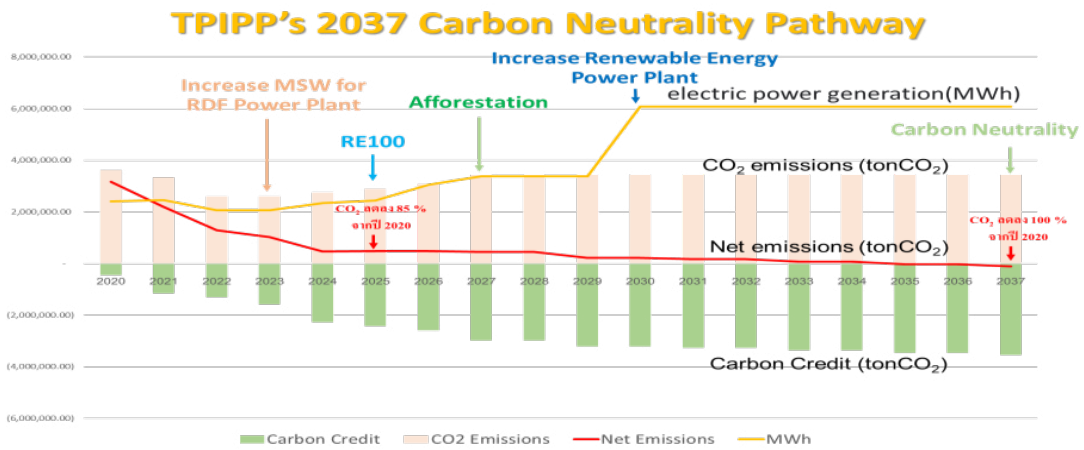
Throughout past, the Company has emerged as one of the leading organizations placing importance on sustainable growth. This is achieved by aligning the strategies of the organization and of TPI Polene Group, in compliance with the Sustainable Development Goals (SDGs). to achieve balanced growth across all dimensions-economic, environmental, and social-guided by principles of good corporate governance (Environmental, Social, Governance: ESG). This approach aims to manage the business for the benefit of all stakeholders equally, accompanies by mitigating the impacts of climate change.

Strategies for Reducing Greenhouse Gases for Sustainable Development

TPIPP's GHG Reduction Strategies



Carbon Neutrality Goal by 2037



http://www.tpipolenepower.co.th/index.php/th/sustainable-development/tcfd-report or Scanning QR Code

Sustainability Management Policy

The Company has established a sustainable development policy aligned with its business direction and strategy, aimed at benefiting all stakeholders through adherence to principles of environmental stewardship, social responsibility, and effective corporate governance, within the framework of good corporate governance.

The Company is committed to contributing to the resolution of the global warming issue, recognizing an opportunity for business growth while adapting itself to address climate change. Therefore, it operates a business focused on renewable energy, specifically through the production of waste fuel derived from municipal waste for use in electricity generation. This initiative helps mitigate greenhouse gas emissions originating from community waste landfills. Additionally, the Company introduces clean energy sources such as solar and wind power for electricity production. With a goal of achieving carbon neutrality by 2037, the Company aims to replace its coal-fired power plants with completely waste-fueled ones, with an expected completion by 2025.

The Company places importance on community and social development. Therefore, policies and operating procedures are established to align with laws, rules, and regulations regarding social and community management, including respect for human rights and the treatment of stakeholders throughout the company's value chain. This includes employees, suppliers, customers, communities, and society in a concrete manner, integrating responsibility for stakeholders throughout the business value chain.

Economic

Total revenue
Baht **11,330.53** mil.

Employee Wages and Benefits
Baht **143.14** mil.

Net profit
Baht **3,653.16** mil.

EBITDA
Baht **4,835.09** mil.

Tax Payments
Baht **16.95** mil.

Dividend per Share
Baht **0.24**

Environment

Certified for **1,559,229** tons of CO_2e carbon credits and granted a Renewable Energy Certificate (REC) for a total of **1,448,191.774** RECs

Greenhouse gas emissions decreased by **739,424.12** tons CO_2e compared to 2022

Coal-fired power plants aim to use **100%** of their waste fuel instead of coal for their electricity generation by 2025

Waste emissions (Zero Waste) decreased by 33.06% compared to 2022, **100%** can be recycled
Hazardous / non-hazardous waste **0%** / **100%**

The Company achieves **6.43** million tons CO_2e reduction by converting **2.77** million tons of waste into fuel

Investment value in the environment-friendly projects Baht **15,476.44** mil.

Project to produce electricity from wind power **5** megawatts (Expected COD 2024)

Proportion of recycled water **4.49%** of the total water usage

Ground-mounted solar farm power plant project (Solar farm phase 1 and 2) **73.21** MW (Expected COD in 2024)

Community and Society

Zero Work-related deaths of employees and contractors

Community and social contributions Baht **43.34** mil.

1,700,016 accident-free work hours (**2.05%** increase compared to 2022)

Employee Turnover (Turnover rate) = **2.42%**

Injury frequency rate of employees = **1.31** and contractors = **0**

Average training hours for employees **33.88** hours/person/year

Satisfaction and employee engagement with the organization at **83.20%**

Zero Occupational illness and disease rates to be recorded in total **1** million hours worked

Disposed of **1,638** tons of COVID-19-related waste and disposed of **12,092.65** tons of non-hazardous industrial waste by using it as waste fuel

Corporate Governance

Reduce the amount of steam used per production **3.88%** compared to 2022

Availability of the overall machine operation of the power plant at an average of **96.54%**

Portion of independent directors **31.25%**

Portion of female directors **25.00%**

Suppliers acknowledge the Company Code of Conduct **96.05%**

Satisfaction of power plant customers and waste fuel customers are 100% and **92.33%**, respectively.

Improve waste fuel quality to reduce moisture to **44 - 45%**

The average operating efficiency of the power plant is **88.10%**

No complaints about the protection of customer personal information

No complaints of human rights violations (discrimination, child labor, illegal labor)

Improve the fuel feed system to increase combustion efficiency, reduce energy consumption by **2.9%** compared to 2022

Improving the alternative fuel supply system to reduce the use of coal for combustion by **2.8%** compared to 2022

Sales value of low carbon products (2023) Baht **7,453.15** mil

Announcement

Issue no. 1/2022

Subject: Principles of employee duties

For success in creating sustainable business growth of The Company, TPI Polene Group adheres to Environmental, Social and Governance (ESG) criteria, (Environmental, Social, Corporate Governance), by embracing the Bio Circular Green Economy as a sustainable business model under the standards of good corporate governance. In carrying out their duties and responsibilities, all employees are required to work under Four Rddhippada: Basic For Success 4, which consists of the follows:

1. Chanda : (Aspiration) - Intention or purpose or desire or zeal. The need to do and always be willing to do what is assigned and aspi re to make it work even better.
2. Viriya: (Effort) or energy or will.
3. Citta: (Concentration) - Consciousness or mind or thoughts, to concentrate on work
4. Vimansa: Planning, checking results, good governance, research and development.

   With a committed heart to create a balanced happiness with a better quality of life in a sustainable manner pursuant to the Four Sublime States of Mind, which consists of the following:

   Metta: Mercy

   Karuna: Kindness

   Mudita: Sympathetic Joy

   Upekkha: Equanimity

Announced on January 5, 2022

Prachai Leophairatana

Chairman

Note: This principle of living follows the metaphysical concept of the Four Noble Truths.

See more details on the Company's website:

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/empprinciple

BRAHMA-VIHARA 4

(FOUR SUBLIME STATES OF MIND)

Metta (MERCY):	Love, desire for others to be happy
Karuna (KINDNESS):	Desire to get others out of their sufferings
Mudita (SYMPATHETIC JOY):	Rejoice in the success of others, compersion
Upekkha (EQUANIMITY:	Stillness, impartiality

IDDHIPADA 4

BASIS FOR SUCCESS 4

Chanda (ASPIRATION)	Passions to do things and desire to make even better results
Viriya (EFFORTS)	Diligence, patience, commitment, endurance, sedulousness
Citta (CONCENTRATION)	Consciousness of the senses, mindfulness
Vimamsa (R&D)	Planning, measuring, and devising solutions

PRINCIPLES OF IDDHIPADA 4
DHARMAS OF SUCCESS FOR WORK CONSISTED OF:

Chanda	means love for work - being satisfied with the work that is being done.
Viriya	means being diligent in one's work.
Citta	means being attentive and responsible for one's work.
Vimangsa	means scrutinizing and using intelligence to work.

FOUR NOBLE TRUTHS

Essence of Buddha's Teachings (Ariyadhamma to End Suffering)

Ariyadhamma of Buddhism is Buddha's doctrine as a metaphysics for the liberation from suffering.

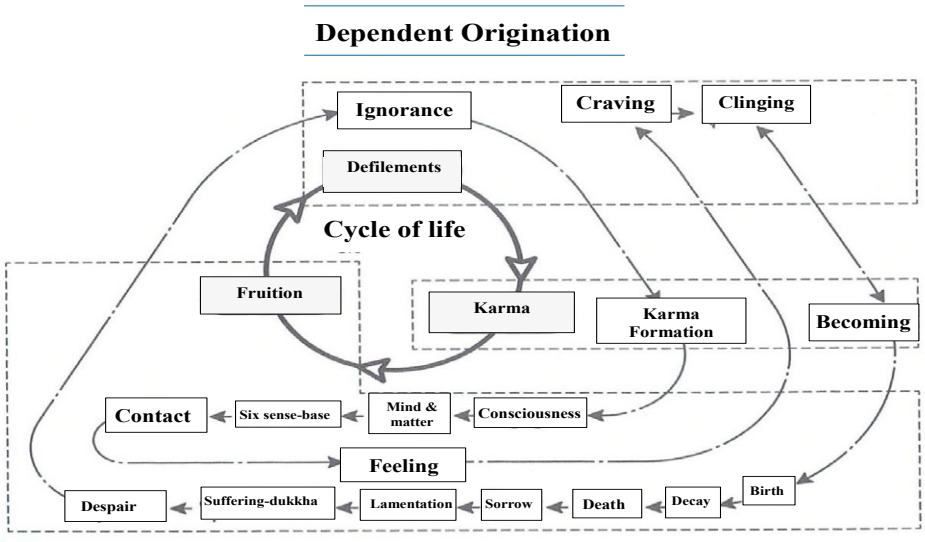
1. Dukkha:	Suffering
2. Samudaya:	The Cause or Origin of Suffering
3. Nirodha:	The Cessation or Extinction of Suffering
4. Marga:	The Path leading to the Cessation or Extinction of Suffering
	Defilement is the path that leads to the cessation of suffering.

1. DUKKHA
UNSATISFACTION, SUFFERING, PAIN

The word suffering in the Noble Truth does not mean suffering in the Thai language as it is commonly understood, but also refers to difficult conditions to endure in the same conditions and oppressive situations.

2. SAMUDAYA
THE ORIGIN OR ARISING OF DUKKHA

Considering from the Cause of Suffering



3. NIRODHA:CESSATION OF SUFFERING IS NIRVANA. (EXTINCTION OF SUFFERING)

It is the elimination of defilements with the power to follow the Eightfold Path until attaining that path.

4. MARGA (THE NOBLE EIGHTFOLD PATHS)

Dharma that kill defilements or end ten Samyojana[4]

The Path leading to the Cessation or Extinction of Suffering:

1. Right view
2. Right intention
3. Right speech
4. Right action
5. Right livelihood
6. Right effort
7. Right mindfulness
8. Right concentration

Chants conquering Evil: Panmare Chino Na Tho

Panmare Chino Natou Patto Sampothimuttaman

Chatur Satjung Pakasti Thammajakang Pawattayi

Etena Sajjavajchena Hotu Me Chayamankalang

Devil[1] 5 (What Kills a Person to Die from Goodness)

THE EVIL ONE, THE TEMPER, THE DESTROYER

1. The MARA of Defilement
2. The MARA of Aggregates 2
3. The MARA of Karma Formations 3
4. The MARA of Deity
5. The MARA of Death

After conquering the five devils, the Buddha enlightened us with the Four Noble Truths

Note:

1. MARA (The Destroyer) is something that kills one from their virtue or from noble results, or something that consumes virtues or hinder one from achieving virtuous achievements.

1. MARA of Defilement is love, greed, anger, delusion, and evil spirit.

2. MARA of Aggregates is a devil who destroys one's aggregates, causing sickness, disability, and eliminating one's opportunity to do good deeds.

3. MARA of Karma Formations is thought, emotion, and karma cultivator that prevents one from being released from suffering in the cycle of samsara or rebirth of one in 31 places of existence.

4. MARA of Death is death that deprives one of the opportunities to do good deeds.

5. Devaputta Mara is an evil deity who is powerful and inspire one not to do good deeds.

2. Five Khandha (Five Groups of Existence or Five Aggregates) are five aggregates of form and abstract that make up the collective units, which are called animals, persons, selfness, they, we, etc. These five components incorporated into life.

1. Corporeality (rupa-kkhandha)

2. Feeling sensation (vedana-kkhandha)

3. Perception (sanna-kkhandha) is the aggregate that remembers what one received and is the part that defines the meaning of what have been known (Arrom 6) such as white, green, black, red, etc.

4. Mental formation, Volitional Activities (sankhara-kkhandha) is the aggregate of thought to identify what you feel and remember whether it good or bad, or neither good nor bad. The mind was led by intention to be good or bad or upyakrit (neither good nor bad), kaya-sankhara (physical intent), vajee-sankhara (verbal intent), and mano-sakhara (mind intention).

5. Consciousness (vinnana-kkhandha) is the aggregate of cognition or knowing of things through the six senses including eyes, ears, etc. The Five Aggregates are abbreviated into two groups, namely abstract and corporeality.

3. Apisankhara 3 is the thought, emotion, and karma cultivator, comprising of:
    1. Punyaphisangkhara is a thought that enhances good karma (merit).
    2. Apunyaphisangkhara is a thought that enhances evil karma (sin).
    3. Anenchaphisangkhan is a thought that is calm, unable to be upset or excited.

4. Fetter is the defilement that binds the animals to suffering or that binds the mind to the cycle of defilement, karma, and the result of karma. There are 10 fetters:

1. Sakkaya-ditthi:	One has the view that the five aggregates are self.
2. Wichikitcha:	One has doubts in the virtues of the Three Jewels: the Buddha, the Dharma, and the Sangha
3. Silappatapramas:	One adheres to the sacred things or customs by believing in magic which is not Buddhism or adheres to the wrong practices, which is not the aim of Buddhism.
4. Kamaraka:	One has contentment in sensual pleasures or lust.
5. Vengeance:	One adheres with anger. Udhamphakiyasayojana or the Five Higher Fetters are:
6. Rupa-raka:	One has greed for material existence.
7. Arupa-raka:	One has greed for immaterial existence
8. Mana:	One had conceit or pride with the feeling of being better, worse, or equal with others.
9 Uttacca:	One is distracted or restless.
10 Avijja:	One has ignorance of the Four Noble Truths

Phra Sodaban	is the one who puts an end to all of the first three fetters, namely Sakkaya Ditthi, Vicikiccha, and Silabbat Pramas.
Sakathakami	is the one who puts an end to all first three fetters, and reduces lust and anger.
Anakami	is the one who puts an end to the five lower fetters.
Arahant	is the one who puts an end to all 10 fetters.

5. Sankhara is bodily and mental formations, together with volitional formations and volitional activities. Sankhara also means “formations” or “that which has been put together” of all including ingredients, decorations, parts of the body, mind, life, spirit, and all things that are made up (Volitional Formation is what our brains think. The more we think, the more formations follow like a shadow following our body. What is in the brain will be expressed through words and actions, which is karma. Since our minds are endlessly concerned or embellished, we commit karma endlessly, resulting in us being reborn indefinitely. In the Trinity (Trilak), Sankhara is the thing being formed or improvised, which is all the mind and forms.

In Paticca-samuppada, Sankhara 3 includes:

1. Kayasangkhara: Vodily volition
2. Vajisangkhara: Verbal volition
3. Manosangkhara: Mental volition

Sankhara has three qualities known as Trilak as follows:

1. Anicca: Impermanence
2. Duhkha: State of suffering or being oppressed, state which cannot stand it in its original condition, state that will deteriorate because of being oppressed by Anicca.
3. Anatta: No real self, incapable of being in power

THE OPPOSITE OF SANGKHARA IS WISANGKHARA WISANGKHARA IS NIRVANA, WHICH IS ETERNAL. IT LEADS TO NICCA, SUKHANG, ANATTA (DHARMA).

Awards of Success and Pride 2023

The awards received both nationally and internationally in 2023 serve as confirmation of the outstanding performance of TPI Polene Power Public Company Limited (“TPIPP”) in the realms of economy, society, and environment.

National-Level Awards

SET ESG Ratings : AA

In 2023, TPIPP was assessed and designated as “ SET ESG Ratings: AA”, reflecting their commitment to conducting ESG business practices that consider the environment, society, and governance for the sustainable benefit of all stakeholders.

“Excellent” Corporate Governance Scoring (5-star Level)

TPIPP has continuously developed its corporate governance practices and has finally achieved an Excellent CG Scoring (5-star Level) in the Corporate Governance Report of Thai Listed Companies (CGR) scheme for the year 2023, as recognized by the Thai Institute of Directors (IOD).

TPIPP was recognized in the ESG 100 stocks in the year 2023.

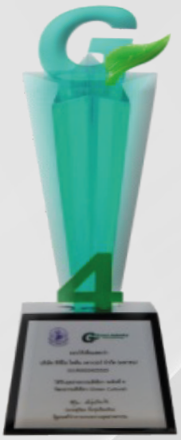
In 2023, TPIPP was selected as one of the ESG100 Securities Companies for its outstanding performance in the areas of Environmental, Social, and Governance (ESG) in the Resource Category, as evaluated by the Thaipat Institute on registered securities.

CSR-DIW Continuous Award for the year 2023

For the 8th consecutive year since 2016, TPIPP was awarded plaques and certificates in recognition of its project to promote sustainable social and community responsibility among industrial factories. This accolade was received under the CSR-DIW Continuous Award category for the year 2023 from the Department of Industrial Works, Ministry of Industry, for Power plants TG1-3 (60MW), TG4 (30MW), TG5 (60MW), TG6 (70MW), TG7 (40MW) and TG8 (150MW).

Sustainability Disclosure Award

TPIPP received the Award of Honor (Sustainability Disclosure Award) for the year 2023, marking the second consecutive year. This award recognizes their excellence in sustainability information disclosure, as evaluated from the Sustainability Report and Form 56-1 One Report for the year 2022 by Thaipat Institute.



Green Industry Level 4 : Green Culture Award for the years 2021 -2024

Power Plants TG 1, 2, and 3 have been awarded Green Industry Level 4 certification for Green Culture, indicating collective cooperation within the organization to operate in an environmentally friendly manner across all aspects of business operations until it becomes ingrained in the organizational culture. This certification is effective from August 26, 2021, to August 25, 2024.

Waste Fuel Power Plant

Waste Fuel Production Plant

‘Circular Economy’ Certificate for the year 2023

TPIPP received the Circular Economy Certificate for the waste fuel power plant and waste fuel production plant through the assessment under the project to develop and upgrade industrial establishments to apply the principles of the Circular Economy in organizations, from the Department of Primary Industries and Mines.

Green Industry Level 3 : Green System Award

Power Plants TG 4, 5, 6, 7, and 8 have received Green Industry Level 3: Green System, indicating a systematic environmental management approach with follow-up evaluation and review for continuous development. This includes certification of various environmental standards for Power Plants TG 4, 5, 6, and 8, effective from August 21, 2023, to August 20, 2026, and for TG7, effective from September 7, 2023, to September 6, 2026.

International – Level Awards

Global CSR – 3G Environmental Responsibility Award 2023

TPIPP received the 3G Environmental Responsibility Award 2023 from the Global Good Governance Awards (3G Awards) 2023, organized by the financial consulting company Cambridge IFA International Financial Advisory of the United Kingdom. This award aims to recognize organizations that have successfully applied social responsibility in their daily business operations, consisting of quality, consistency, stability, and clarity of social responsibility plans and reports.

The International Diamond Prize for Excellence in Quality 2023 from the European Society for Quality Research

The International Diamond Prize for Excellence in Quality 2023 from the European Society for Quality Research On July 9, 2023, TPIPP received The International Diamond Prize for Excellence in Quality 2023 from the European Society for Quality Research (ESQR) in Brussels, Belgium. It is a prestigious award, symbolizing excellence in quality organizational management, reflecting the strength of business operations comparable to international levels, and representing a model organization with sound business principles. The award is granted under quality assessment according to international standards, aiming to create and develop cutting-edge technology innovations.

ASIA's GREATEST BRANDS 2022-2023

On December 17, 2022, TPIPP received ASIA's GREATEST BRANDS 2022-2023 award from Asia One Magazine for its outstanding work that was accepted and trusted by consumers, reflecting the potential of strong leaders promoting the economy both domestically and abroad.

ASIA's GREATEST CEO 2022 – 2023

Asia One Magazine presented the ASIA's GREATEST CEO 2022-2023 Award to Mr. Prachai Leophairatana, Chief Executive Officer (CEO) of TPI Polene Group, who has played a key role in promoting the economic sector in Thailand and participating in both the micro and macro levels of Thailand and Asia.

Receiving Best Green Renewable Energy Power Plant in Thailand 2023

TPIPP has received the Best Green Renewable Energy Power Plant in Thailand 2023 award, the global-stage award from World Business Outlook, a print and online magazine that provides comprehensive analysis of the financial industry, international business, and the global economy. This award is considered highly prestigious. TPIPP remains committed to fostering sustainable business growth, thereby further strengthening the organization, community, and nation.

The Best Innovations in Renewable Energy Industry in Thailand for the year 2023 (outstanding innovative within the Thai renewable energy industry)

Awarded by The Global Economics, a leading finance magazine in the United Kingdom.

Best ESG Energy Efficiency Initiative Company Thailand 2023

Awarded as the leading company in ESG Energy Efficiency innovations in Thailand for the year 2023, consecutively for the third year, by the International Finance Magazine (IFM), United Kingdom.

Business Excellence Awards 2023 from BIZTECH Outlook

The BIZTECH Outlook magazine awarded the Business Excellence Awards 2023 to Mr. Prachai Leophairatana , the Chief Executive Officer (CEO) of the TPI Polene Group.

Certificates and Awards

International Organization for Standardization : ISO

for the implementation of international standard systems in various systems from SOCOTEC Certification (Thailand) Company Limited.

Thailand Voluntary Emission Reduction : T-VER

Thailand Voluntary Emission Reduction (T-VER) for Changing Municipal Solid Waste to Fuel Project from Thailand Greenhouse Gas Management Organization (Public Organization)

Promotion and support for energy conservation and the advancement of renewable energy

Thailand Energy Awards: Outstanding Renewable Energy Award

- On-Grid Power Generation Project, 20 MW Renewable Fuel Power Generation Project, 60 MW Renewable Fuel Power Generation Project, 70 MW Renewable Fuel Power Generation Project
- Non-Grid Project, Municipal Waste Fuel Production Project, and Municipal waste Renewable Fuel Project 2
- Renewable Energy Application Project (Project to increase efficiency and reduce downtime, renewable fuel (waste) power plant, 60 MW) From the Department of Alternative Energy Development and Efficiency, Ministry of Energy.

ASEAN Energy Awards

- 1st runner-up: Renewable Energy: On-Grid Power Generation Project, 60 MW Renewable Fuel Power Generation Project
- 2nd runner-up: Non-Grid Project, Municipal Waste Fuel Production Project, and Municipal waste Renewable Fuel Project From the Department of Alternative Energy Development and Efficiency, Ministry of Energy

General information of TPI Polene Power Public Company Limited (2-1)

Background

TPI Polene Power Company Limited (abbreviation: TPIPP) is a 70.24% owned subsidiary by TPI Polene Public Company Limited or TPIPL, listed on the Stock Exchange of Thailand on April 5, 2017, with authorised share capital of 8,400,000,000 baht consisting of ordinary shares 8,400,000,000 shares.

The Company, with the largest waste-fired power plant in Thailand situated in Saraburi Province and a total production capacity of 440 megawatts according to AWR Lloyd data, stands as the foremost operator in electricity and energy production from waste disposal across the ASEAN region. Its primary operation involves processing community waste into fuel, and supplying electricity to both the Electricity Generating Authority of Thailand ("EGAT") and TPI Polene Public Company Limited.

At present, the Company operates three categories of power plants: Waste-to-energy power plants, Waste heat to power plants, and Coal-fired power plants. The Company is currently in the process of shifting from coal fuel to an alternative fuel derived from community waste and other renewable sources, with the aim of phasing out coal usage by 2025.

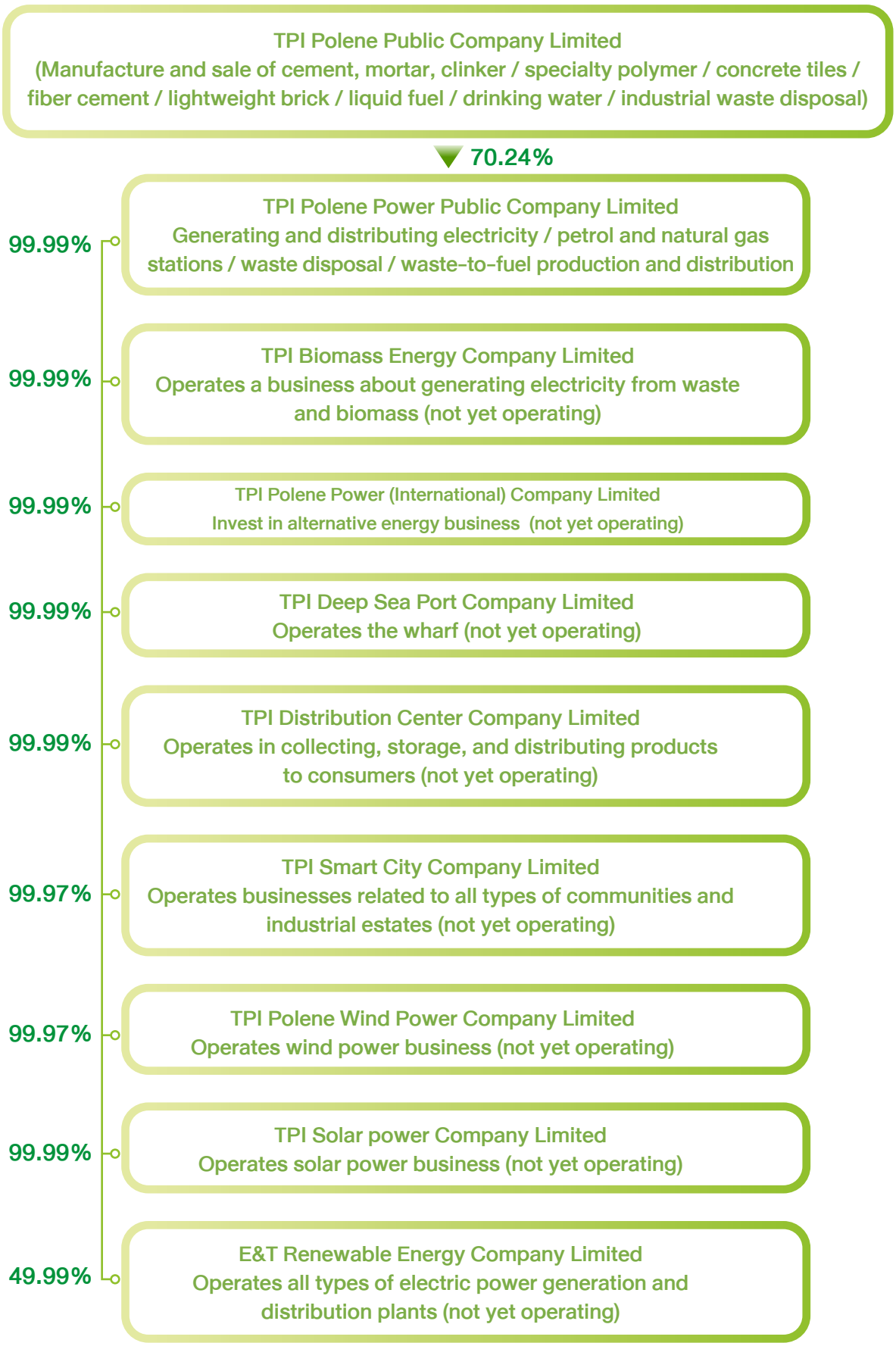
Business Overview

http://www.tpipolenepower.co.th/index.php/th/

TPIPP Products

http://www.tpipolenepower.co.th/index.php/th/th-product/energy-utilities-business/electric-energy

Shareholding Structure of the Group



Policy, Vision, and Mission

Core Competency : As a leader in renewable energy-based electricity production, TPI Polene Power Public Company Limited commits to quality and regulatory standards. The Company persistently advances technological innovation and personnel development to maximize stakeholder returns, all the while administering its corporate responsibilities with ethical integrity and governance excellence.

Policy : Committed to conducting business to enhance value to business and society sustainably, focusing on ethics, transparency, fairness, and social responsibility towards culture and the environment. Concurrently fostering sustainable development for employees, customers, communities, and all stakeholders, under governance that aligns with principles of corporate governance and ideals.

Vision : To be a leader in efficient renewable energy and a clean and green energy producer, focusing on the development of technology and innovation in all dimensions of work, as well as to become the largest waste disposal plant in the country and in ASEAN to reduce greenhouse gas emissions to zero or negative, conducting business responsibly for sustainable growth in economic, environmental, social dimensions, and good corporate governance.

Mission :

- To support the disposal of municipal waste to various local organizations to be converted into fuel in the form of renewable energy correctly and efficiently.
- Developing various alternative fuel technologies and electricity generation methods to reduce the problem of overflowing garbage in Thailand and reduce waste fuel costs
- To enhance the production efficiency of power plants, it involves designing and installing equipment for immediate use, establishing backup plans to prevent disruptions, and promptly resolving any arising issues.
- To produce electrical energy from renewable sources utilizing fuel derived from community waste for grassroots economies, instead of relying on fossil fuels and coal, and incorporating clean energy from solar and wind sources to mitigate greenhouse gas emissions.
- To promote and develop personnel potential to achieve quality and readiness in driving organizational competency and competitiveness.
- To maintain and comply with BCG (Bio-Circular-Green Economy) standards in managing environmental impacts, including implementing waste management practices with maximum utilization and zero waste from the production process to outside.
- To conduct business with responsibility to all stakeholders in a balanced manner and strive to develop society to grow along with sustainable development of the organization.

Nature of business (2-6)

The Company operates in 2 types of businesses: Energy and Utilities Business, and Petrol and Natural Gas Station Business, which operates within Thailand only, with the following details:

1. Power and Utilities Business consists of:

1.1 Power plants

The Company operates three types of power plants: (1) waste heat recovery power plants, (2) municipal solid waste power plants, and (3) coal-fired power plants supplemented with additional renewable fuels. The Company believes that operating a power plant utilizing waste heat, solid waste energy, and renewable energy will benefit from government policies that tend to support and promote the production of electricity from solid waste fuel and renewable sources, in line with the National Energy Plan. This plan focuses on clean energy and aims to achieve carbon neutrality between 2065 and 2070, aligning with the global energy direction that emphasizes reducing global warming.

As of December 31, 2023,(203-1) (203-2) the Company operates eight power plants totaling 440 megawatts in installed capacity, consisting of five waste-to-energy plants with a combined capacity of 250 megawatts. (This includes a Power Purchase Agreement for 163 megawatts with the Electricity Authority of Thailand, with the remaining electricity sold to TPI Polene Public Company Limited.) In addition, there are two waste heat-to-power plants with a combined installed capacity of 40 megawatts, and one coal-fired power plant with a total capacity of 150 megawatts (currently transitioning from coal to waste fuel). These plants exclusively sell their generated electricity to TPI Polene Public Company Limited and are all located in Kaeng Khoi District, Saraburi Province, in close proximity to TPI Polene Public Company Limited's cement production plant. The categories of power plants can be summarized as follows:

Power Plant Type	Operational Characteristics	Production Capacity
A. Waste Heat Recovery Power Plant	• **Located within the same area as the cement manufacturing facility of TPI Polene Public Company Limited, utilizing the waste heat emitted from the cement production process of TPI Polene Plc. in the electricity production process of a waste heat power plant. This process transfers the waste heat left over from the clinker kiln instead of treating it by reducing the temperature before releasing it into the atmosphere to the boiler for electricity generation without using any additional fuel. This method produces electrical energy and can also reduce the impact on the climate.**	**Consists of 2 power generating units with an installed capacity of 20 megawatts per unit, totaling 40 megawatts.**

Power Plant Type	Operational Characteristics	Production Capacity
B. Waste-to-energy power plant	• Generates electricity by burning waste fuel as the main fuel by converting municipal waste into the fuel process to produce steam from the steam boiler in order to use the steam to further generate power. • The process of converting municipal waste into fuel to generate power is the method to dispose municipal waste and reduces impacts on the environment and reduced greenhouse gas emissions which is better than landfill waste management. The Company was evaluated by the Thailand Greenhouse Gas Management Organization for reducing greenhouse gas emissions by using municipal waste as fuel in order to register for a carbon credit certificate. • The Company completed the installation of five incinerators and grate boilers in August 2018, which can be used to burn municipal waste directly and increase the amount of steam produced, thereby increasing the rate of utilization of electricity capacity in waste-to-energy power plants. They can also dispose of scraps left from the waste fuel production process. Each incinerator has a burning capacity of 800 tons per day, making it able to burn and dispose of a total of 4,000 tons of waste per day, which is the largest capacity in Thailand. Situated in the same area (Economy of Scale), it boasts the highest waste incineration capacity in the ASEAN region. Additionally, another incinerator of the same size is under construction, expected to be completed in 2024. Once operational, it will be able to burn and dispose of waste for electricity generation, increasing the capacity to 4,800 tons per day.	The waste-to-energy power plant has a total installed capacity of 250 megawatts, selling 180 megawatts of electricity to the Electricity Generating Authority of Thailand and 70 megawatts to cement factories.

Power Plant Type	Operational Characteristics	Production Capacity
C. Coal-fired plant	• The Company operates a coal-fired power plant utilizing a highly efficient steam generator technology. This power plant supplies electricity to cement factories and is equipped with pollution control systems that exceed the standards set by the Office of Natural Resources and Environmental Policy and Planning (ONEP) for environmental impact reporting. Currently, the Company's coal-fired power plants have a combined installed capacity of 150 megawatts. • The Company plans to phase out coal usage in its electrical generation processes, transitioning to an investment strategy aimed at converting all steam boilers to utilize waste and other renewable energy sources as substitutes for coal. Scheduled for completion by 2025, this transition not only addresses the financial implications of increased coal prices but also positions the Company to apply for greenhouse gas reduction certification through Carbon Credits.	The firm's coal and renewable fuel power plants have an installed capacity of 150 megawatt

1.2 Waste Fuel Plant

The Company operates a waste fuel plant for the production of waste-based fuel for its steam boilers in electricity generation. This fuel is also supplied to TPI Polene Public Company Limited, substituting coal fuel in the cement manufacturing process in Saraburi Province.

The Company's waste fuel plant has a total capacity of 15,000 tons of waste per day, which is the largest in Thailand and the world's largest. The main plant is located in Kaeng Khoi District. Saraburi Province, in the same area as the Company's power plant.

The Company has built a waste fuel plant in collaboration with its partners who receive waste disposal concessions in surrounding provinces. It is confident in its ability to procure a sufficient amount of waste in the long run. The Company expanded its waste fuel production plants in Saraburi Province, as well as increased the number of waste collecting plants in several communities to expand production capacity to support the increasing demand for waste fuel. The goal is to increase the waste fuel production capacity and to receive more waste up to a total of 23,500 tons per day in 2024.

1.3 Solid Waste Disposal Plant, Waste Incinerator

The Company expanded its business by participating in the bidding for Incinerator Waste Management and Power Generation Projects for purchasing electricity from municipal waste power plants according to the purchasing announcement of the Energy Regulatory Commission Notification on June 30, 2022, by purchasing electricity generated from municipal waste in the form of Feed-in-tariff (FIT) for a period of 20 years and tipping fee from the public agency for the specified duration. Waste disposal fees and terms are varied depending on each agreement.

The Company was selected through a competitive bidding process for the municipal waste management

project of the Songkhla Provincial Administration Organization and the second phase of the municipal waste disposal project of Nakhon Ratchasima Municipality, as well as the community waste-fueled power plant in Mukdahan Municipality, Mukdahan Province. Agreements have been signed for the proposal to sell electricity to the Provincial Electricity Authority, with an expectation that all three projects will commence operations by the year 2026.

1.4 Solar and Wind Power Plants

The Company aims for growth and expansion of electricity production capacity, focusing on renewable energy power plants from solar and wind energy, aligning with Thailand's direction and plan for electricity production development for the years 2018-2037 (PDP2018 Rev.1).

The Company has invested in solar power plant projects (Solar Farm Phase 1 and 2), with a maximum installed capacity of 73.21 MW in the factory area of Saraburi Province, intending to sell additional electricity to cement plants to increase the proportion of renewable energy used in cement production, targeted for completion around the year 2024. This initiative enables the company to produce electricity from solar energy at lower costs, reducing the average electricity cost and allowing for an increased sale of electricity volume to support the future electricity expansion projects of the TPI Polene group, which will transition to using electricity in vehicles and machinery within the cement plant to an Electrical Vehicle system.

1.5 Solar Power Plants

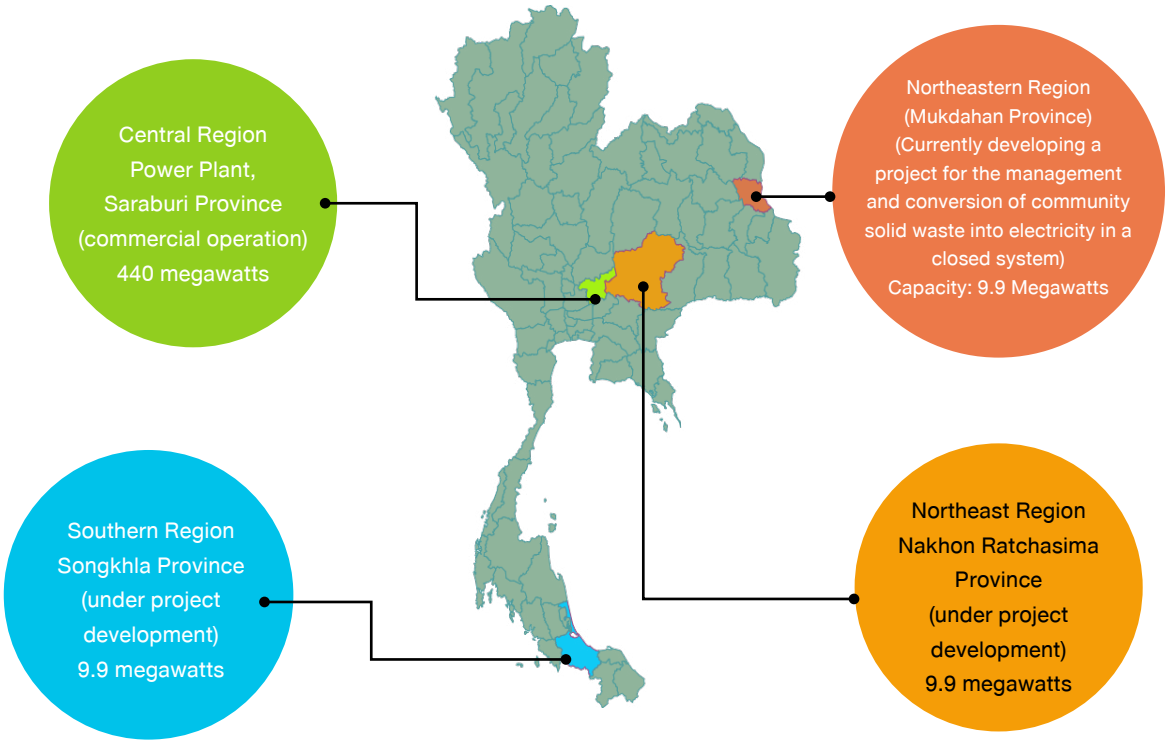
Producing electricity from sunlight, or via a solar cell system, begins with solar panels receiving sunlight and converting it into direct current (DC) electricity. This electricity is then sent through a power conversion device, known as an inverter, to convert it into alternating current (AC). The AC electricity is distributed to the building's Main Distribution Board (MDB), which then supplies electricity to various electrical appliances. This system can replace electricity purchased from the Electricity Authority, enabling users to generate some of their own electricity (Prosumer), thereby reducing the burden of electricity costs associated with purchasing electricity.

Using solar cells connected to a distribution system (PV Grid Connected System) for electricity generation is a method designed to harness sunlight and convert it into electrical energy. This process involves equipment that transforms direct current electrical energy into alternating current, facilitating direct access to the electricity transmission system. Such systems are deployed in urban areas or regions with access to an electrical distribution network. Key components of this setup comprise solar panels and equipment for converting direct current to alternating current, all integrated into the electrical distribution system.

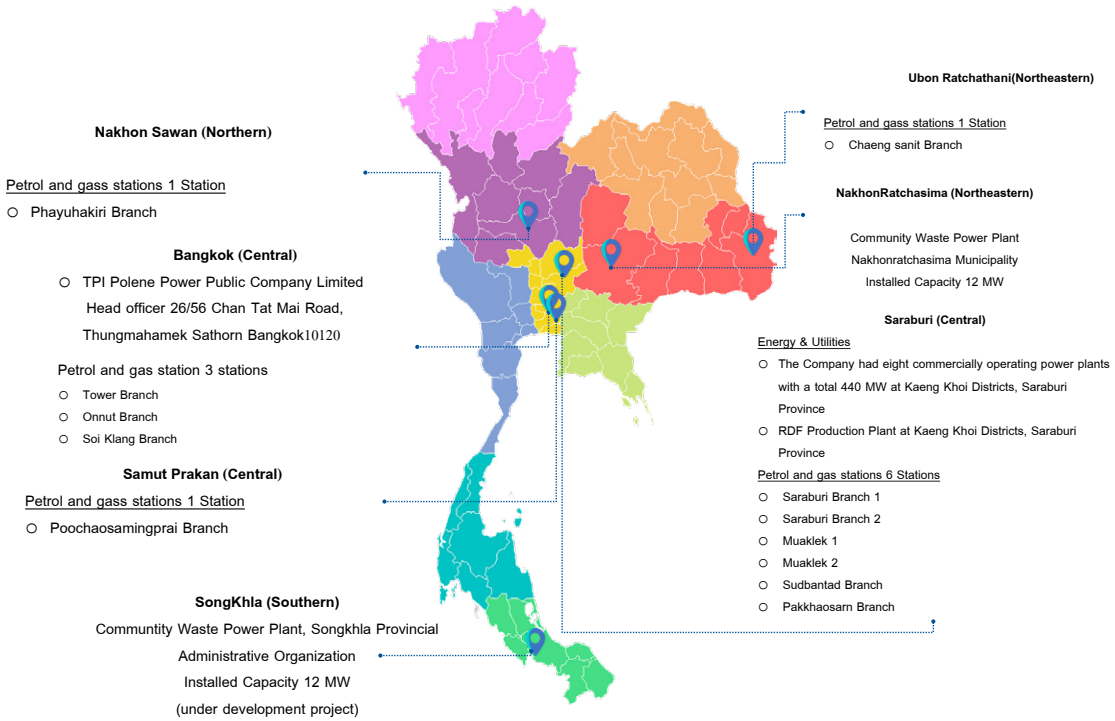
2. Petrol and Natural Gas Vehicle (NGV) Station Business

At present, the Company operates 12 petrol and natural gas vehicle stations under the TPIPP brand located throughout Bangkok and other provinces. Most of the customers are those who transport cement for TPI Polene. There are 8 petrol stations, 1 natural gas station, and 3 petrol and natural gas vehicle stations under the TPIPP brand, with 3 service stations located in Bangkok and 6 stations in provincial areas, consisting of 3 stations in Saraburi Province, 1 station in Ubon Ratchathani Province, 1 station in Nakhon Sawan Province, and 1 station in Samut Prakan Province.

Locations of the Company's Power Plants



Service areas



EMPLOYEE INFORMATION IN 2023 (2-7) (2-8)

The Company has a total of 1,141 employees, consisting of 94 employees at the head office and 1,047 employees at Saraburi plants details are as follows:

Total number of employees classified by employment contract (full-time and contract staff) and by gender

Details	Male		Female		Total	
	Number (persons)	Percent	Number (persons)	Percent	Number (persons)	Percent
Full-time staff (person)	992	96.50	75	66.37	1,067	93.50
Contract staff* (person)	36	3.50	38	33.63	74	6.50
Total (person)	**1,028**	**100**	**113**	**100**	**1,141**	**100**

Notes: * Contract staffs are annual contract employees and daily contract employees.

Total number of employees classified by employment contract (permanent and temporary contracts)

Details	Total
Full-time staff (person)	1,067
Annual contract staffs (person)	12
Daily contract staff (person)	62
Total (person)	**1,141**

Notes: * Contract staffs are annual contract employees and daily contract employees.

The Company provides equal employment opportunities without discrimination, encompassing both disabled individuals and other disadvantaged groups. In 2023, a total of 68 new employees were hired, comprising 62 general employees, 3 elderly individuals, and 3 disabled people. Additionally, the Company contributed to the Empowerment for Persons with Disabilities Fund, as stipulated in Section 23 of the Empowerment of Persons with Disabilities Act, B.E. 2550 (2007), with an amount of Baht 957,760, equivalent to employing 8 people with disabilities.

Supply Chain of TPI Polene Power Public Company Limited [2-6]

Upstream operations	Investment initiation with value-driven capital from shareholders and financial institution creditors across several power plant projects entails budget allocation for investment in technology and innovation. This involves procurement of machinery/ equipment from partners with assured quality. Regarding waste procurement and transportation, the Company has has entered into waste procurement contracts with several domestic partners, who recognize and uphold the ethical code of conduct in procurement, supply, and contracting with the Company. This support extends to the disposal of community waste for local organizations, transforming it into fuel and energy efficiently and effectively through a transparent procurement process.
Midstream operations	Power generation by using innovative technology that will reduce production costs, control risks in safety, occupational health, and environment that may lead to loss of life, injury, illness due to the work of employees and contractors which affects the interruption and continuity of business operations and may affect the communities, society and environment, as well as strictly operating on the environment in accordance with the announcement of environmental policy regulations has resulted in the Company receiving awards and certifications for management systems according to international standards.
Downstream operations	Power generation that prioritizes transmission and distribution efficiency to 2 important customers, Electricity Generating Authority of Thailand and TPI Polene Plc. by the Company delivers electricity to customers continuously to maintain customer satisfaction.

For business operations from upstream, midstream, and downstream, the Company has operated with its personnel throughout the business value chain. The Company's business operations take into account the impact on the environment and local communities, strict compliance with regulations, rules, environmental laws, and other relevant laws, employing labor management and labor relations, taking appropriate care of occupational health and safety responsibly and adding value to employees, paying attention to human rights practices, managing efficiently according to corporate governance principles with good corporate governance, making the Company's business stable and growing continuously.

Good Corporate Governance

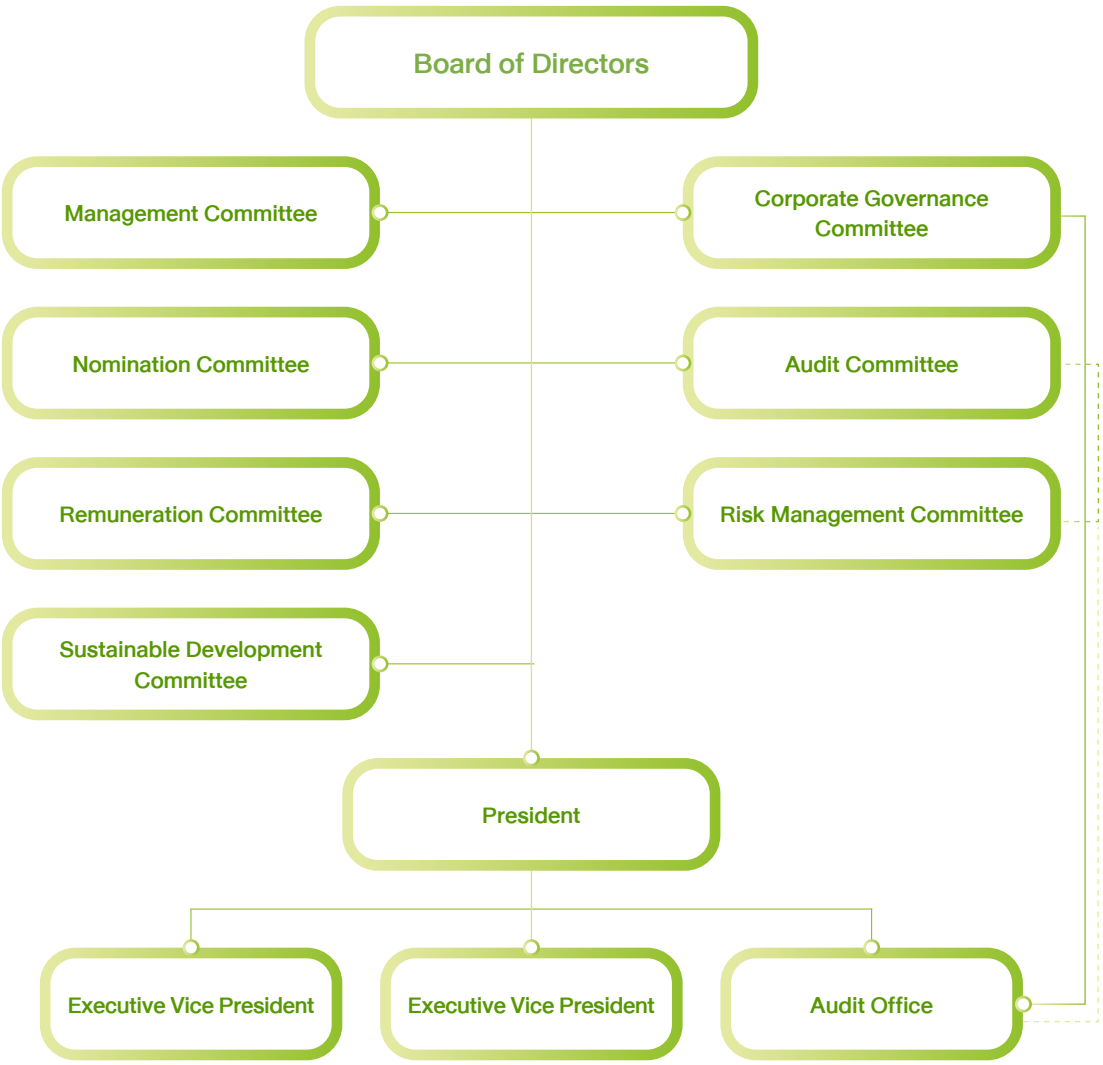
The Company recognizes the importance of good corporate governance in order to contribute to sustainable development, and the Company has established corporate governance policies and codes of conduct of the Company and is determined to promote the firm to be an organization that does business with transparency, ethics, and responsibility for shareholders, stakeholders, customers, employees, society and other stakeholders. The Company is determined to be an effective organization under an administration that complies with “Transparent Thailand where all citizens live happily”. The Company’s Board of Directors specifies principles of Good Corporate Governance for the Board, Management, and all employees of the Company to follow as a guideline practice.

Conducting business operations in accordance with a good corporate governance policy and business ethics, as well as developing operational standards to be at an international level, the Company has monitored an assessment of operational performance to ensure effective implementation, which covers investments, joint planning, defining a clear roadmap, following up operating results, reporting on the progress of operations on a regular basis, as well as establishing long-term strategies and long-term goals for sustainable growth development.

In addition, the Company has established anti-corruption policies and a Supplier Code of Conduct to promote transparency, prevent fraud and anti-corruption, and prevent conflicts of interest in order to ensure that the Group’s business operations are transparent, fair, take into account equality and integrity in business operations, as well as to strengthen good relationships with partners and related stakeholders to be in line with good corporate governance principles, the Company’s Code of Conduct, and provisions and relevant governing laws to further develop into a sustainability organization.

Corporate Governance Structure (2-9)

Corporate Governance Structure



As of December 31, 2023, the Company's management structure consists of the Board of Directors and has 7 sub-committees consisting of Management Committee, Audit Committee, Remuneration Committee, Nomination Committee, Corporate Governance Committee, Risk Management Committee, and Sustainable Development Committee.

Role of Board of Directors

http://www.tpipolenepower.co.th/index.php/en/en-aboutus/directors/the-board-of-directors

Management Committee and Audit Committee

http://www.tpipolenepower.co.th/index.php/en/en-aboutus/directors/management-committee

Remuneration Committee

http://www.tpipolenepower.co.th/index.php/en/en-aboutus/directors/compensation-committee

Nomination Committee

http://www.tpipolenepower.co.th/index.php/en/en-aboutus/directors/nomination-committee

Corporate Governance Committee

http://www.tpipolenepower.co.th/index.php/en/en-aboutus/directors/the-governance-committee

Risk Management Committee

http://www.tpipolenepower.co.th/index.php/en/en-aboutus/directors/risk-management-committee

Sustainable Development Committee

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/directors

For sustainability in economic, environmental, social, and corporate governance dimensions for maximum efficiency and effectiveness, the Company appointed a Sustainable Development Committee (ESG Committee), which consists of 2 sustainability development committees: Sustainable Development Committee (Head Office) and Sustainable Development Committee (Saraburi Plant) with the roles and responsibilities of each committee as follows:

Functions and Responsibilities of the Sustainable Development Committee

1. To set policies, strategies, and frameworks, to implement strategies and to consider the selection of issues that promote the sustainable development of the organization, as well as to set sustainable development goals to be in line with the implementation of the business operations in Economic, Society & Environment to be proposed to the Chief Executive Officer for approval.
2. To supervise, review, and monitor the progress of the operation and evaluate the effectiveness of the implementation to comply with the Company's sustainability policy.

3. To encourage concrete implementation and participation in various projects within the framework of sustainable development with related departments, both inside and outside the organization.
4. To provide advice, promotion, and support of appropriate resources and the right personnel in order to implement sustainable development strategies throughout the organization and to be aligned in the same direction.
5. Chairman of the Sustainable Development Committee has the power to appoint a sub-committee or a working group responsible for the implementation of sustainable development in each field to be comprehensive and consistent with the key issues of the organization
6. Report on the performance and the preparation of the sustainability report to the top management.
7. To oversee the implementation of the climate change strategy.

Conflicts of Interest (2-15)

The Company places importance on considering transactions that probably have conflicts of interest between the Company and its shareholders. In the event that the Company has connected transactions with individuals who may have conflicts of interest, it will comply with the rules and regulations of the Capital Market Supervisory Board, the Securities and Exchange Commission, and the Notification of the Board of Governors of the Stock Exchange of Thailand Re: Disclosure of Information and Other Acts of Listed Companies Concerning the Connected Transactions. The directors and executives who have interests in the transactions made with the Company will not be involved in the decision-making of such transactions. Disclosure of transactions that may have conflicts of interest or connected transactions must be in accordance with the regulations set by the Capital Market Supervisory Board, the SEC, and the SET, which is disclosed in the annual report/annual information disclosure form (Form 56-1 One Report) or other reports as the case may be, as well as in accordance with generally accepted accounting principles. In addition, according to the Company's Articles of Association, the directors must notify the Company without delay if they have interests in contracts made with the Company or hold more or fewer shares or debentures in the Company.

Remuneration for Directors and Executives (2-19)(2-20)

Remuneration for executives at all levels is based on their performance which is in accordance with the consideration of the Board of Directors as the Remuneration Committee, with the Chairman, the President, and the top executives jointly considering their perspectives of work processes within the organization and employees and covering both annual performance and assessment of potential and leadership, to ensure that it can lead the organization to achieve Company's long-term strategic goals. Each executive position will have performance indicators that correspond to their roles and responsibilities. Each year, the Board of Directors considers salary adjustment for the President and the President considers the salary adjustment of top executives according to their performance. However, such salary adjustments must be in line with the Company's criteria.

In 2023, the Company's Remuneration Committee considered the Board of Director remuneration 1 time whereby the meeting discussed comparing the similar type of business and size, together with the fact that each director had more burdens, duties, and responsibilities in the Company than before as the Company was in the period of expanding the scope of business operations. In addition, in the past year, the Company's turnover increased satisfactorily, reflecting the dedication and attention of the Board of Directors to the Company.

Remuneration for the Board of Directors is considered within the scope authorized by the resolution of the Extraordinary General Meeting of Shareholders No. 2/2016 on April 29, 2016, Agenda 2.6, in return for good performance, effective for the Company's business management, and for morale in performing duties to be more efficient and effective. This shall take effect from the date of approval of the shareholders' meeting onwards and the remuneration for the Board of Directors shall be reported to the shareholders on the date of the annual general meeting of shareholders for further information.

Development of Directors and Executives [2-17]

The Company has a policy to support the training on the sustainable development (ESG — Environmental, Social, and Corporate Governance) under the Company's good corporate governance principles to the Board of Directors and top executives to promote knowledge and understanding of how to operate under the principles of good corporate governance of listed companies. The Company arranges an orientation for new directors and provides a director's handbook, documents, and useful information for being a director, and encourages directors to attend training sessions with the Thai Institute of Directors Association and other institutions throughout the year to promote knowledge and understanding of how to operate under the principles of good corporate governance of listed companies in order to increase knowledge about the roles and responsibilities of directors which will lead to continuous improvement and modernization.

See more details in Form 56-1 One Report 2023, on Page 173-175 at

http://www.tpipolenepower.co.th/index.php/th/th-investment/ar/ar-h/category/94-annual-report-form-56-1

Assessment of the Board of Directors[2-18]

The Board of Directors arranges for self-assessment and annual assessment of other directors to be used as a framework for examining the performance of the Board of Directors and considering, reviewing, analyzing the performance, and bringing improvements to the performance independently at least once a year. It is a self-assessment of the Board of Directors, sub-committees, and Chief Executive Officer (CEO)/Chairman of the Management Committee in order to comply with good corporate governance principles, taking into account the elements that determine the Company's ESG sustainability performance as part of the performance assessment indicators of the Board of Directors, directors and management, and focusing on using the assessment results for improving the performance of the Board of Directors and Chief Executive Officer (CEO)/Chairman of the Management Committee. The assessment form consists of:

1. Performance Appraisal Form for the Board of Directors as a whole consists of 6 topics: structure and qualifications of directors, roles, and responsibilities of committees, meetings of committees, duties, relationship with the management and self-development of directors and the management.

2. Performance Appraisal Form for the Board of Directors of each committee consists of 3 topics: structure and qualifications of directors, meetings of sub-committees, roles, duties, and responsibilities of sub-committee

3. Performance Appraisal Form for the Board of Directors on an individual basis (for committees/sub-committees) consists of 3 topics: structure and qualifications of committees/sub-committees, meetings of committees/sub-committees, roles, duties and responsibilities of committees/sub-committees.

4. Performance Appraisal Form for Chief Executive Officer (CEO)/Chairman of the Management Committee consists of financial performance (e.g. revenue, company sales, Economic Value Add (EVA), other financial performance) and environmental, social, and/or governance (ESG) performance such as satisfaction of employees/ partners/communities, especially the aim to reduce the amount of greenhouse gas emissions and the Company's resources for cost and environmental benefits, all of which are part of the metrics for the performance assessment for top executives (CEO or equivalent), which consists of 10 topics:

1. Leadership
2. Strategic formulation
3. Strategy implementation
4. Planning and financial performance
5. Relationship with the Board of Directors
6. External relations
7. Management and personnel relations
8. Succession
9. Knowledge of products and services
10. Personal Characteristics

In addition, the Board of Directors remains committed to management in order to make the organization grow sustainably as follows:

1. Clean: To perform duties with transparency, and honesty, conduct oneself in accordance with rules, regulations, ethics, and Code of Conduct, taking into account the reputation of the organization and the benefit of the community.

2. Commitment: To take responsibility for their own work, help others, and share responsibility for the success of their team and organization.

3. Skill: To possess the ability to manage tasks and budgets according to good governance principles, as well as develop modern working methods.

4. Collaboration: To have good human relations, be tolerant and respect others' opinions, and be able to effectively communicate and coordinate with related parties.

5. To possess the ability to make decisions and prevent and solve problems accurately and timely.

6. To possess the ability to manage personnel and develop personnel, including team members, to have evident work potential.

Performance Assessment Process of Highest Supervisory Authority for 2023

See more details on the Company's website:

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/boadrd-mgt/board-assessment-result

Domestic and International Environmental Performance Standards

The Company has been inspected and certified with a Certification Body issued for its implementation of international standards in various systems from SOCOTEC Certification International Thailand as follows:

- ISO 9001:2015: Quality Assurance Management System Implementation
- ISO 14001:2015 is an international standard for an organization's environmental management system to enhance the environmental performance within the organization and for environmental sustainability.
- ISO 50001:2018 is an energy management system standard as the framework of energy management.
- ISO 45001:2018 is an occupational health and safety management system standard.
- Certification for the use or production of renewable energy in 2019 (Gold Label) from the Thailand Environment Institute
- Thailand Voluntary Emission Reduction : T-VER Thailand Voluntary Emission Reduction Registration (T-VER) for RDF Production from Municipal Solid Waste of TPI Polene Power PCL from Thailand Greenhouse Gas Management Organization (Public Organization)
- Certification of "Green Industry Level 4"

Organization membershi [2-28]

- Listed company on the Stock Exchange of Thailand (SET)
- Sustainability Disclosure Community (SDC) with Thaipat Institute
- Saraburi Power Development Fund
- ESG Credit Program with Thaipat Institute
- Member of the Thai Institute of Directors Association (IOD)

TPI Polene Power and Sustainability

The TPI Polene Group set its Group's direction aiming for sustainable development by operating in accordance with the Circular Economy to maximize the use of resources by recycling or reusing resources for maximum benefit, and the Green Economy, aiming to reduce the impact on the environment in terms of resource utilization, product production, as well as end-of-life products to low carbon production where the main goal is to reduce greenhouse gas emission. TPI Polene Group has set policies and goals for sustainable management as follows:

Sustainable Management Policy and Goals [2-12]

The Board of Directors and top executives have formulated a sustainability policy by emphasizing on being a tool to drive the organization to achieve its vision of sustainable development in line with business directions and strategies by supporting the Sustainable Development Goals (SDGs) of the United Nations in order to create a balance in terms of economy, environment, and society under good corporate governance with a policy framework and sustainability management as follows:

Policy	Sustainability Management
1. Economic dimension	ЏFocusing on using technology and innovation in the production of quality products and services, efficient management in every step, using technology to change work processes, applying research and development results to develop business models, continuously adding value to products and services, seeking investment opportunities with good returns, strategizing for both short-term and long-term business growth, being flexible, take into account both internal and external risk factors and having systematic readiness and production efficiency.
2. Environmental dimension	To focus on developing a low-carbon economy and society, aiming to achieve carbon neutrality by 2037, conducting business using circular economy policies, increasing energy efficiency, enhancing the utilization of renewable energy, appropriately addressing issues of solid waste, waste, and water consumption, paying attention to biodiversity and soil degradation, establishing an efficient transportation system, reducing the impact of operations throughout the value chain, and responding to all stakeholders in a balanced manner.
3. Social Dimension	To conduct business responsibly, prioritize all stakeholders in a balanced manner, operate with respect for and protection of human rights across the value chain, including employees, suppliers, customers, and social communities, generate returns for shareholders, ensure occupational health and safety as well as a positive working environment, continuously manage and develop the abilities and skills of personnel, attend to the health and safety of customers, evaluate suppliers based on societal criteria, provide clear product labeling information, respect personal data, support youth education, and engage in activities that contribute to creating value and enhancing the quality of life in communities and society for sustainable growth.
4. Corporate Governance Dimension	Adhering to the principles of accuracy and compliance with relevant laws and regulations under the Code of Conduct, Business Ethics, with a framework based on good corporate governance principles, disclose information and performance with transparency, manage all risks, have flexibility in management, act against corruption, have a transparent and fair procurement system, do not use inside information to seek interests, and have security of information and information systems.

For more information on our sustainability policies and goals, please visit:

http://www.tpipolenepower.co.th/index.php/th/sustainable-development/sdgs

Social responsibility

http://www.tpipolenepower.co.th/index.php/th/th-investment/social-responsibility-th

Business operations that support the Sustainable Development Goals (SDGs) of the United Nations

The Board of Directors of TPI Polene Power Public Company Limited and top executives established a policy for TPI Polene Group to grow sustainably by setting goals and conducting business that supports the Sustainable Development Goals (SDGs) of the United Nations. TPI Polene Group's responds appropriately to the SDGs and are in line with the vision, mission, nature of business, strategic plans, as well as materiality issues to sustainability and stakeholder expectations by selecting 10 of the 17 main Sustainable Development Goals, consisting of:

SDGs	Operational Guidelines	Results
	• Determining operational guidelines that comply with ISO45001, an occupational health and safety management standard system. • Determining additional welfare to support practitioners in accessing medical services for cases that are not related to operations, such as examination and basic medical treatment, and emergency treatment at the Company's infirmary. • Supporting ongoing health care of employees by setting additional health check-up items according to the risk of age groups, such as blood lipid tests (Total Cholesterol, LDL, HDL, Triglycerides) for employees to keep monitoring their health. • Committed to solving global warming problems by adapting to climate change, the Company sees an opportunity for business growth. Along with this commitment, the Company operates a business related to renewable energy by producing waste fuel processed from municipal waste for use in electricity production, thereby reducing greenhouse gas emissions from community waste landfills. The Company also introduces clean energy sources such as solar and wind energy for electricity production. With a goal of achieving carbon neutrality by 2037, the Company aims to replace its coal-fired power plants with completely waste-fueled power plants, with completion expected by 2025. • All of the Company's waste fuel production plants reduce greenhouse gas emissions by using such waste as fuel instead of landfilling, which causes global warming. • Participating in Thailand Voluntary Emission Reduction Program (T-VER) by Thailand Greenhouse Gas Management Organization (TGO)	• Rate of work-related ill health is zero. • Rate of work-related accidents is zero. • In 2023, the Company was successful in receiving 2.77 million tons of waste from landfills while reducing carbon emissions by 6.43 million tons of carbon dioxide equivalent through the use of the waste alternative fuels in power plants and cement plants and reducing methane gas from the waste. This will result in reducing the problem of global warming and improving the health and well-being of the world's population. • The Company has been registered for carbon credits by the Greenhouse Gas Management Organization (Public Organization), totaling 1,559,229 tons of carbon dioxide equivalent. Furthermore, The Company has been certified with the Renewable Energy Certificate (REC) through EGAT for its electricity production from renewable sources (using waste fuel and residual heat). The company has registered and accounted for the purchase and sale of 1,448,191.774 RECs with the International REC Standard (I-REC), where 1 REC represents the amount of electricity (1 MWh) generated from renewable energy
	• Establishing a training plan for employees to develop both soft skills and hard skills, totaling 154 courses in 2023, with the training goal of not less than 20 hours/person/year.	• Number of training hours 33.88 hours/person/year, classified by male 36.83 hours/person/year, female 6.99 hours/person/year • A total of 1,141 employees, representing 100 percent, received performance appraisals.
	• Adhering to the 3Rs (Reduce, Reuse, Recycle) principles by increasing the efficiency of water use, namely reducing the amount of water used in the production process and having wastewater from the plants through the treatment system and reusing it without water treatment by the Company's water management.	In 2023, the Company managed water as follows: • Reducing water consumption by 918,728 cubic meters or 9.71%, from 9,464,639 cubic meters in 2022 to 8,545,911 cubic meters in 2023. • Reuse 383,461 cubic meters of post-treated or 4.49% of the total water usage
	• Energy consumption targets are set as follows: 1. Short-term goals (within 1-2 years) - Station Service Used must not exceed 12% of the energy produced. - The total cost of all types of energy per power generation must not exceed 15.00 MJ/kWh. 2. Long-term goals (not less than 3 years): The total cost of all types of energy per power generation must not exceed 14.50 MJ/kWh.	In 2021-2023, the Company operated as follows: • Cooling tower efficiency improvements to increase turbine efficiency and reduce electrical power for cooling. • Proceeding to stop the turbines to clean the condenser of Turbines No. 5 and 7. • Adjusting the air volume in Boiler B8 to increase the combustion efficiency.

SDGs	Operational Guidelines	Results
	• Development and investment projects related to clean energy with the goal of reducing climate change risks and helping to distribute income to society.	• The investment is allocated to 12 projects aimed at reducing climate risks and promoting environmental friendliness, totaling approximately Baht 15,476.44 million. **More details** about the investment in various projects are available in the Sustainability Report, on Page 101-102 Section: Investment Project for Increasing Electricity Sales Volume and Environmentally Friendliness.
	• Improving fuel and machinery quality in order to keep pace with changes in accordance with global energy trends towards the development of green energy.	• Increasing the efficiency of the water cooling system by changing the water distribution plate, allowing the cooling water temperature to decrease by 2 - 4 degrees Celsius, improving the efficiency of power generation, and reducing the amount of steam consumption per unit of power generation in 2023 by 3.88% compared to 2022. • Improving alternative fuel feed systems from previously using screw conveyors, causing compaction, changing to using vibration conveying, causing fuel to spread, reducing clogging and burning faster, increasing combustion efficiency, reduce energy consumption in 2023 by 2.9% compared to 2022. • Improving the alternative fuel supply system to use less coal by using more alternative fuels causes the ratio of coal to alternative fuels in power generation in 2023 to decrease by 2.8% compared to 2022. • Improving the quality of waste fuel to reduce moisture, the drainage system from the renewable fuel pile, increasing storage areas to increase the rest period, and allowing the moisture to decrease from 46.5% to 44 - 45% at present.
	• Determining “Zero Waste” Policy • Determining guidelines for waste and waste management in the business process systematically according to the 3R (Reduce, Reuse, Recycle) principles. • Improving the production process of cement plants so that waste fuel can be used instead of coal by 25% by allowing TPI Polene Power Public Company Limited to purchase waste from local partners who are responsible for sorting waste to help reduce the amount of community waste, promote job creation, create community-based livelihoods, reduce socio-economic inequalities, and increase employment, and increases economic value.	• Industrial waste generated from the production process has been utilized as alternative fuels, alternative materials, and recycled in the total amount of 13,190.44 tons, accounting for 100% of the total amount of industrial waste generated. • Waste from power plants has been managed for maximum benefit such as using all heavy ash and fly ash as alternative raw materials at TPI Polene’s cement plant.
	• Determining a business policy by integrating the concept of an economic model for sustainable development (Bio-Circular-Green Economy (BCG)) into the main business process to reduce the use of natural resources from raw material procurement, production, sales and transportation, utilization, disposal of discarded products and making the best use of limited energy and natural resources.	• Processing sorted waste into fuel. • Conditioning organic substances from waste sorting to become a soil conditioner. • Use of ashes from power plants in concrete mixes

SDGs	Operational Guidelines	Results
	• Investment in research and the development of technology or the implementation of projects designed to mitigate climate-related risks.	• The investment is allocated to 12 projects aimed at reducing climate risks and promoting environmental friendliness, totaling approximately Baht 15,476.44 million. More details about the investment in various projects are available in the Sustainability Report, on Page 101-102 **Section:** Investment Project for Increasing Electricity Sales Volume and Environmentally Friendliness.
	• Strict compliance with laws covering business law, social law, and environmental law • Determining guidelines for Environmental Impact Assessment (EIA) and Environmental Health Impact Assessment (EHIA) completely (100%) • Preparing reports on environmental law compliance, environmental impact assessment results, and environmental and health impact assessment results for public agencies and communities.	• The Company carried out air quality measurements and environmental impact monitoring under the EIA report, as well as hiring environmental experts to implement additional environmental impact assessment and monitoring projects from the EIA.

In this regard, the Company has a strategy for sustainability in accordance with the policy framework and sustainability management that promotes the vision of TPI Polene Group along with good practices according to the principles and international standards of the United Nations as detailed above. The Policies and targets are reviewed annually to cover potential risks that may arise in the future.

Implementation of Human Rights (2-23)(2-24)

Establishment of Foundation for Human Rights Operations.

The Company emphasizes the implementation of human rights, conducting its business with responsibility towards stakeholders in a balanced manner, guided by principles of corporate governance, under good corporate governance and respect for human rights. This includes adherence to business management guidelines focusing on sustainable development, accuracy, and strict compliance with relevant laws and regulations. These practices align with government policies promoting the BCG Model, aimed at comprehensively enhancing the quality of life for communities and society in the country, facilitating the effective distribution of opportunities, and reducing inequality.

The Company upholds human rights principles in its treatment of stakeholders across the value chain, encompassing employees, suppliers, customers, and local communities. This commitment is entrenched in the Company's policies, such as the Code of Conduct and Supplier Code of Conduct, which are crafted collaboratively with suppliers. The Company also adheres to provisions stipulated in international human rights principles and labor standards, including the United Nations Universal Declaration of Human Rights, the Universal Declaration on Fundamental Rights and Rights at Work of the International Labor Organization, the Thai Labor Protection Act 2017, and respects the International Labor Organization (ILO).

Management Guidelines

The Company's Prioritization on Respecting the Rights of Employees

The Company's labor management is based on respect for human rights in various aspects such as gender, religion, and belief, providing equal and fair opportunities for work and career advancement without discrimination, ensuring the right to freedom of association and collective bargaining as fundamental rights, securing employees' personal data, eradicating illegal child labor, and refraining from the use of coerced labor (labor which is illegally coerced to work) and forced labor (forcing laborers to work exceeding legal limits without compensation).

The Company treats employees fairly according to human rights principles. A welfare committee has been established, comprising employee representatives who play roles in negotiating with the Company on agreements affecting employees. Performance evaluations are conducted for every employee using clear criteria, and the results are used to determine fair compensation. Various training courses are organized for employees based on their job positions and responsibilities, aiming to promote progress and develop their potential. The Company also measures employee satisfaction and engagement levels annually and takes the results of these satisfaction assessments into consideration when developing projects, policies, and procedures to enhance care and promote employee potential. Additionally, the Company provides a comprehensive occupational health and safety system in the working environment for its employees.

The Company's Prioritization on Respecting the Rights of Suppliers

The Company treats its suppliers equally and fairly, providing a transparent procurement process and ensuring fair competition without discrimination. Personal data of suppliers is securely handled. Additionally, the Company encourages suppliers to adhere to human rights principles by prohibiting the use of child labor, coerced labor, and forced labor. The Company has integrated human rights and occupational health and safety issues into its Supplier Code of Conduct, which is jointly prepared with suppliers. Additionally, the Company evaluates the environmental, social, and corporate governance (ESG) risks of its suppliers annually to ensure that they conduct business with respect to human rights. Moreover, the Company appropriately provides an occupational health and safety system for its suppliers and contractors.

The Company's Prioritization on Respecting the Rights of Customers

Ensuring fair treatment of customers involves producing and delivering stable electricity, as well as consistently supplying safe electricity while maintaining the security of customer personal data. This commitment extends to conducting quarterly surveys and assessments to gauge satisfaction among both power plant and waste fuel factory customers.

The Company's Prioritization on Respecting the Rights of Local Communities

The Company recognizes the importance of local communities by providing care, support, and building good relationships with them, while continuously listening to their opinions and participating in community activities. Additionally, the Company annually prepares the following reports: a report on performance in accordance with CSR-DIW Continuous standards for the social responsibility of entrepreneurs, a report detailing the results of surveys and monitoring related to the economic and social aspects of the power plant project's community, and a report summarizing the outcomes of a community satisfaction survey aimed at identifying concerns affected by the Company's operations. These concerns are then addressed to mitigate potential impacts on the community and society as a whole. Furthermore, the Company actively promotes the hiring of employees from surrounding communities and engages community workers in annual reforestation efforts, thereby supporting local livelihoods alongside its business operations.

Operational Goals

The Company acknowledges the importance of respecting human rights in its business operations, as evidenced by its commitment reflected in the Company's human rights policy. It has initiated a comprehensive human rights inspection process aimed at assessing risks arising from potential opportunities and impacts related to human rights issues. This process aids the Company in understanding the potential human rights impacts on both internal and external stakeholders, while also facilitating the identification and prioritization of human rights risks at the enterprise level. Such an approach enables the Company to effectively plan and manage the impacts of high-risk human rights issues through additional impact assessments.

Human Rights Due Diligence (HRDD)

As the Company is aware of the importance of human rights management, considering that stakeholders in the Company's value chain may be affected by human rights violations, the Company has implemented a comprehensive Human Rights Due Diligence (HRDD) process. Its sustainability development working group follows the steps outlined below:

Steps in the Comprehensive Human Rights Due Diligence (HRDD) Process

1. Policy Commitment

The Company has established a human rights policy to encompass the entire value chain, including its employees, suppliers, customers, and local communities. This policy incorporates various guidelines such as TPI Polene Power's Code of Conduct, Supplier Code of Conduct, as well as announcements regarding the International Human Rights Policy (No. 006/2016) and the Personal Data Protection Policy (BorKor No. 0017/2021).

TPI Polene Power's Code of Conduct

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/code-of-conduct-th

Supplier Code of Conduct

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/supplier-code-of-conduct-th

Announcements regarding the International Human Rights Policy (No. 006/2016) and the Personal Data Protection Policy

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/pdpa

2. Cultivation through Organizational Policy

The Company is committed to following the human rights policy by promoting a culture of respect for human rights principles throughout the organization. This includes providing training and disseminating knowledge regarding respect for human rights principles to employees at all levels within the organization, as well as conducting continuous assessments of human rights risks.

3. Assessment of Human Rights Risk

The Company has assessed human rights risks and will study and review human rights risks related to business operations throughout the value chain on an annual basis. This is to ensure that the plan and measures to mitigate, correct, and remedy the human rights impacts of the Company are appropriate, effective, and updated. The results of the risk assessment will help the Company effectively conduct business according to human rights principles in operating areas that are at risk, helping to prepare for and prevent damage that may occur from human rights violations.

3.1 Determination of Inspection Scope

The Company has considered activities that pose a risk of violating human rights in its main operating areas, namely the Bangkok office and the Saraburi Power Plant, where it conducts business or engages in activities with employees, suppliers, customers, and nearby local communities. The human rights issues of stakeholders in the value chain can be summarized as follows:

1. Non-discrimination
2. Diversity & Equal Opportunity
3. Freedom & Collective Bargaining
4. Occupational Health and Safety
5. Employee Personal Data Security
6. Child Labor
7. Coerced Labor & Forced Labor

1. Non-discrimination
2. Occupational Health and Safety
3. Supplier Personal Data Security
4. Child Labor Coerced Labor & Forced Labor
5. Security Practices (Security Guard)

1. Efficiency, Availability and Reliability of Electrical System
2. Non-discrimination
3. Customer Personal Data Security

1. Continuous care for Community and Society

3.2 Assessment of Human Rights Risks

The Company's risk management process, as outlined in its policy, adopts the criteria of The Committee of Sponsoring Organizations of the Treadway Commission - Enterprise Risk Management (COSO-ERM) as guidelines, comprising 8 elements as follows:

1. Internal Environment
2. Objective Setting
3. Event Identification
4. Risk Assessment
5. Risk Response

6. Control Activities
7. Information & Communication
8. Monitoring

The evaluation criteria of the Company take into account the severity of impacts and potential opportunities stemming from activities that carry a risk of violating the human rights of stakeholders across the value chain, as outlined in 3.1.

3.3 Prioritization of Human Rights Risks

Based on the result of the human rights risk assessment, one high-risk human rights issue was identified: the risk of occupational health and safety for employees. Other human rights issues within the value chain pose medium to low risks, as follows:

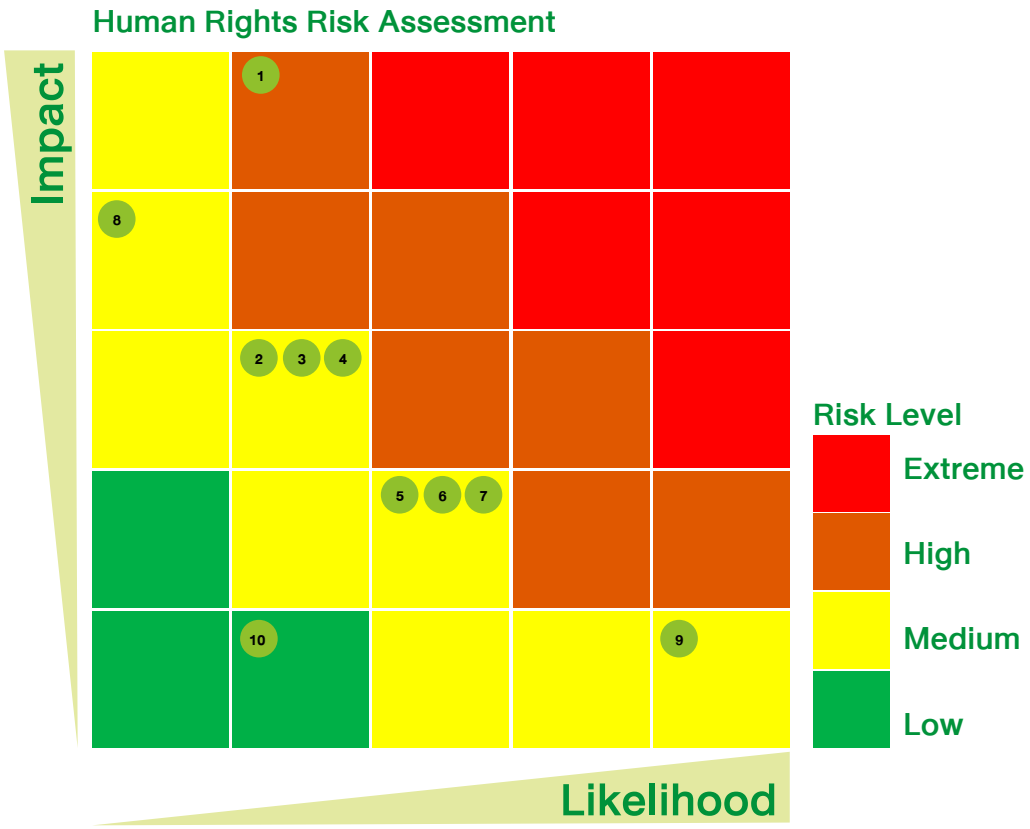
Result of Human Rights Risk Assessment

Level of Human Rights Risks		
High Risk	**Medium Risk**	**Low Risk**
1. Occupational Health and Safety	1. Efficiency, Availability and Reliability of Electrical System 2. Non-discrimination 3. Diversity & Equal Opportunity 4. Freedom & Collective Bargaining 5. Child Labor 6. Coerced Labor & Forced Labor 7. Local Communities 8. Personal Data Security	1. Security Practices (Security Guard)

The Company has established guidelines to control operations strictly adhering to international standards, ensuring safety for all stakeholders amidst occupational health and safety issues posing high risks. Further details are available in the Section "Occupational Health and Safety in the Work Environment".

Remarks: Risk scores are divided into 4 levels as follows:

Overall Risk Level	Score	Meaning
Low	1-2	The level of risk is deemed acceptable without requiring further risk control or additional management.
Medium	3-6	The level of risk is deemed acceptable, requiring risk control measures to prevent it from accelerating to unacceptable levels.
High	7-12	The level of risk is considered unacceptable, necessitating risk management to maintain it at an acceptable level.
Extreme	13-25	The level of risk is unacceptable, requiring urgent implementation of risk management to immediately maintain it at an acceptable level.



The Company can manage risks according to the guidelines for human rights operations, with measures to prevent and reduce the risk of various human rights violations being strictly defined. The operation is closely monitored, as stated in the guidelines for managing human rights complaints and remedies, including continuous monitoring and reporting of performance results. This aligns with the goal of having no cases of human rights violations throughout the value chain.

Furthermore, the Company is committed to taking corrective actions in the event of any future violations. This ensures that affected parties will receive appropriate remedies for any damages incurred, as well as timely protection or assurances to prevent recurrence of the infringement.

Table: Potential Impacts and Mitigation of Impacts on Stakeholders of its Value Chain

Stakeholders	Impacts	Impact Management Guidelines
Employee 	• Discrimination against employees occurs due to gender differences, including female and male, as well as against groups of people with diverse genders, races, ages, religions, ethnicities, cultures, and classes. • Occupational health and safety of employees • Employment conditions & Labor relations • Employee personal data may leak to outside parties.	• The Company's related policies such as human rights policy, sexual harassment prevention policy, Personal Data Protection Policy, including good corporate governance and Code of Conduct. • Promoting employee health and safety through system standards such as ISO 45001: 2018 • Establihsing measures to deal with the COVID-19 crisis, such as Work From Home and Online meetings. • Establishing a welfare committee that promotes the bargaining power of employees. • Conducting annual employee satisfaction and engagement surveys.
Supplier 	• Discrimination against suppliers • Occupational health and safety of suppliers • Supplier personal data • Hiring illegal workers	• Signing for acknowledgment and Supplier Code of Conduct in the business operations of manufacturers procuring products, raw materials, and services. • Explaining to suppliers at the operational level and complying with guidelines for supervising operations to be consistent with the Company's requirements and standards and labor laws of the International Labor Organization (ILO) regarding labor rights • Complying with the supply chain management system. • Assessing economic risks posed suppliers. • Evaluating and monitoring the performance of suppliers through the ESG RISK assessment of suppliers • Evaluating the On-Site ESG Audit with suppliers.
Customer 	• Reliability in the efficiency of electrical system. • Satisfaction with various services • Discrimination against customers. • Customer personal data	• Quarterly assessing environmental and climate risks and preparing a report on the project's production operations to propose to EGAT once a month. • Conducting customer satisfaction surveys twice a year. • Handling customer complaints.
Community 	• The standard of living and quality of life of people in the community. • Community's access to clean water sources. • Negative impacts on the environment such as air pollution emissions, improper waste management, occurrence of unexpected events	• Paying attention to solving problems with the community by preparing a report on the results of surveys and monitoring of economic and social aspects, and a report summarizing the results of the annual community satisfaction survey. • Continuously participating in building relationships with the community through social projects. • Policy and plans for sustainable water management, ensuring access to clean water sources without obstructing them, which involves refraining from blocking or diverting community water sources until a drought occurs. • Establishing an Environmental Management System with measures to prevent and solve problems in the short and long terms. • Strictly adhering to the measures outlined in the environmental impact assessment report to prevent and mitigate environmental impacts. • Continuously developing innovations to mitigate environmental impacts.

4. Impact Remedies

In providing remedies for cases of human rights violations, the Company will establish a process for accepting complaints. All employees are expected to collectively monitor compliance with the principles of good corporate governance and the Code of Conduct, encouraging the reporting of any practices that conflict with, or are suspected of conflicting with, the rights of stakeholders in good faith. All received information will be treated as confidential. Complaints supported by clear evidence will be handled with fairness, transparency, and care, ensuring equitable treatment for all parties involved. An appropriate period will be allocated for the inspection and investigation of complaints. Additionally, guidelines will be established to protect the rights of stakeholders affected by violations arising from the Company's operations. Compensation for damages will be considered to be provided at a rate no less than that specified by law.

Contact for receiveing complaints

TPI Polene Power Public Company Limited

No. 26/56 TPI Tower, Chan Tat Mai Road, Thungmahamek, Sathorn, Bangkok 10120

Tel. 02 2131039

EMAIL: orapin@tpipolenepower.co.th

However, in 2023, no reports or complaints of human rights violations were received, and consequently, no remedial action was taken.

5. Follow-up & Reporting

The Company follows up on compliance with the human rights mitigation measures outlined, with a focus on mitigating and reducing negative impacts. Functions that have implemented mitigation measures must monitor, inspect, and review action plans to ensure effective development and undergo re-evaluation to ensure that the impacts are properly and appropriately addressed.

Human Rights Operations in 2023

The Company has established clear goals and directions to both promote and protect against human rights violations, enabling it to assess risks and mitigate the possibility of future violations. Awareness surrounding human rights is being strengthened to create value, develop, and expand various projects by increasing participation based on the principles of respect for human rights across all stakeholders throughout the value chain.

In 2023, the Company addressed human rights for stakeholders as follows:

Engagement with Internal Stakeholders Respecting Employees' Rights

A new Welfare Committee for the year 2023 was elected; it represents employees with roles and responsibilities in negotiating with the Company regarding agreements that affect employees.

- The Company provides equal employment opportunities without discrimination, encompassing both disabled individuals and other disadvantaged groups. In 2023, a total of 68 new employees were hired, including 62 general employees, 3 elderly individuals, and 3 disabled persons. Additionally, the Company made a financial contribution to the Empowerment for Persons with Disabilities Fund, as stipulated in Section 23 of the Empowerment Of Persons With Disabilities Act, B.E. 2550 (2007), with an amount of Baht 957,760 equivalent to employing 8 people with disabilities.

- The Company has continuously managed and developed the potential and skills of personnel, with the set goal of providing training for no less than 20 hours per person per year. The Company has achieved the target of 33.88 hours per person per year.

- In 2023, the measure of employee satisfaction and engagement revealed an average total score of 83.20%, surpassing the Company's target of 75%. Leveraging the results from the employee opinion survey, the Company has consistently crafted activities aimed at fostering positive relationships with employees to maximize their satisfaction levels.

- Concerning the occupational health and safety of employees, the Company observed zero work-related fatalities, zero injuries stemming from high-impact work, and zero illnesses due to occupational diseases, all aligning with the Company's established goal of occupational health and safety.

Engagement with External Stakeholders Respecting Suppliers' Rights

- Suppliers, amounting to 96.05% of a total of 557, have signed to acknowledge the Supplier Code of Conduct concerning human rights practices, which the Company emphasizes for strict compliance by suppliers.

- The economic risk arising from the Company's suppliers and the ESG Risk (environmental, social, and corporate governance) were assessed with 39 suppliers in Critical Tier 1, accounting for 7% of a total of 557 suppliers. The assessment concluded that they met reliable criteria, indicating no economic risk from suppliers and no ESG risk across all assessment topics.

- The Company enhances the human rights risk management process by focusing on reducing the risk of human rights violations and improving the quality of life in the working environment, which covers labor, health, safety, and well-being. Additionally, it provides knowledge to foster understanding and awareness about the importance of respecting human rights, and conducts random inspections through actual field visits. As a result of these efforts, it was found that suppliers had no cases of human rights violations.

Respecting Customers' Rights

- Continuously generating and delivering stable electricity and safe in supplying electricity

- The overall satisfaction assessment from power plant customers, including EGAT and TPI Polene Public Company Limited, averaged 100%. The Company has established a yearly satisfaction goal for these customers of no less than 80%.

- The overall satisfaction assessment from customers of the waste-fueled power plant and TPI Polene Public Company Limited averaged 95.83%. The Company has established a yearly satisfaction goal for these customers of no less than 80%.

- The Company consistently delivers electricity to all customers while ensuring safety, which is a basic right and promotes a good quality of life for the customers of the Company and its affiliates.

Respecting the Rights of Local Communities

- The production of high-quality and efficient electricity utilizes modern technology that is environmentally friendly and has no impact on the community and society, aligning with the policy of reducing the use of highly polluting coal fuel and emphasizing alternative energy sources as fuel. In 2023, the project to build two boilers using alternative fuels was completed, and an additional three boilers will be completed in 2026, enabling the use of alternative fuels to generate all electricity in 2025.

- The Company conducted a survey designed to examine the conditions and concerns of the community and society that may be impacted by the Company's operations. This involved preparing the following reports: a report on the results of the economic and social monitoring survey for the Company's power plant project in 2023; a report summarizing the community satisfaction survey results for the Company's power plant project in 2023; and a report on performance in accordance with CSR-DIW Continuous standards for social responsibility of entrepreneurs in 2023.

- On March 16, 2023, the Company collaborated with community leaders and villagers from Thap Kwang Sub-district, Tha Khlo Sub-district, Kaeng Khoi District, and Mittraphap Sub-district, Muak Lek District, Saraburi Province, to plant forests under the 'TPIPP Reforestation Project: Reduce Heat, Save the World,' planting 1,000 Bungor trees, 1,000 teak trees, and 1,000 neem trees within a 100-rai area inside the Saraburi factory.

- The Company fosters participation and executes projects aimed at enhancing the quality of life for individuals in communities surrounding the power plants and society at large. These initiatives adhere to principles emphasizing respect for fundamental rights and job security.

- The Company has supported various public benefit projects and activities, amounting to approximately Baht 43.34 million in total, benefiting communities, educational institutions, temples, hospitals, and various government agencies. The Company donates health products and products of the TPI Polene Group, including cement, construction materials, organic bio-fertilizers, drinking water, and health products to prevent pathogens.

- The Company has supported the voluntary budget to help communities and society surrounding these power plants as follows:

(1) Since 2019, a health insurance fund has been operating for communities surrounding power plants. As of the end of 2023, the fund has accumulated a total of Baht 3,020,173.04.

(2) The fund for research projects focusing on community career development, natural resource conservation, and environment restoration has been operational since 2019. By the end of 2023, the fund has accumulated a total of Baht 1,866,800.

(3) The budget supporting personnel quality, medical equipment, and public health research has been operational since 2019. By the end of 2023, this budget had accumulated a total of Baht 7,970,443.80.

(4) The budget supporting occupational health and safety to be used for supporting the increase of the hospital's potential, promoting sub-district health facilities and public health personnel has been operational since 2019. By the end of 2023, this budget had accumulated a total of Baht 356,273.

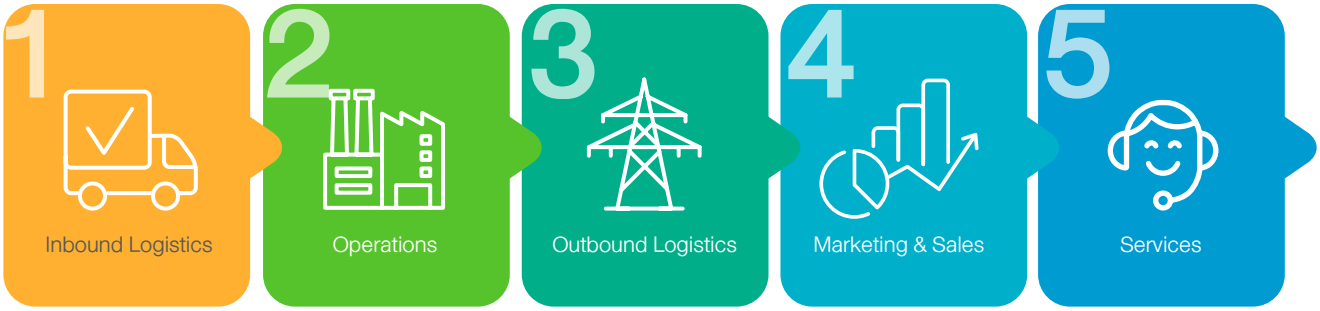
(5) The budget supporting biodiversity for supporting tree planting activities and increasing forest areas for communities and related agencies, has been operational since 2019. By the end of 2023, this budget had accumulated a total of Bath 786,000.

Stakeholder Engagement (2-29)

The Company realizes the importance of stakeholder participation by analyzing both internal and external stakeholders throughout the value chain of the business. It believes that healthy relationships based on trust as well as opinions and suggestions of stakeholders towards the organization are important factors to achieve the goal of being an organization to develop and grow sustainably. In addition, stakeholder management helps the organization effectively manage risks that may cause damage to its image and business interruption opportunities.

The value chain of TPI Polene Power

Value Chain Analysis : TPIPP



Inbound Logistics
Transport and storage of raw materials
Take raw materials from the Company's waste soring units in certain areas.

- Sorted fresh waste
- Sorted landfill waste transporting raw materials into the shredding process for size reduction

Operations
Produce goods or Services

- Raw materials enter the shredding process for size reduction under the specified standards to be used as waste fuel.
- Waste fuel is transported through a conveyor system to the power plant.
- Waste fuel enters the furnace.
- Heat from fuel combustion is used to boil water in the boiler and becomes steam.
- High-pressure steam is sent to drive the turbine and run the generator.

Outbound Logistics
Storage and Distribution

- Connect the power distribution system to Cement Plant (TPIPL)
- Connect the electricity distribution system to the PEA.
- Distribute waste fuel to the cement plants (TPIPL) to be used as an alternative fuel to coal.

Marketing & Sales

- Provide details of machinery technology, efficiency, and capacity to generate electricity and distribute clean energy to build confidence and prepare documents for consideration of power purchases for EGAT.
- Encourage local communities to participate in disposal of waste to be converted into fuel.

Services

- Report the power plants' performance to EGAT every month.
- Provide a satisfaction evaluation form for the cement plants (TPIPL) to assess annually or report complaints.
- Support suppliers for production technology.
- Provide online programs allowing EGAT agencies (contractual suppliers) to log in to inspect the Company's electricity generating operations.
- Install a monitor to report online air quality measurement results in front of the plants.
- Act as a waste management learning center for public agencies, educational institutions, and communities.

Stakeholders of TPI Polene Power

The Sustainability Development Working Group, comprising executives and staff from different departments of the Company, encompassing both the head office and the Saraburi Power Plant, directly engaged in business operations with diverse stakeholder groups, collaboratively analyzed and assessed the significance of stakeholders, taking into account their influence and impacts on the Company across various issues, as outlined below:

- Does this group of stakeholders have a significant influence on the Company's economic, social, and environmental performance?
- Has this group of stakeholders been significantly influenced or impacted by the Company's economic, social, and environmental performance?
- Will this group of stakeholders have significant influence or be significantly influenced/affected by the organization in the future?
- Is this group of stakeholders at risk of human rights violations from the organization or the value chain?
- Based on the above assessment, it can be concluded that the Company's stakeholders are classified into 9 groups, comprising:
  1. Community and Society*
  2. Employees*
  3. Government Agencies*
  4. Shareholders/Investors
  5. Suppliers and Contractors
  6. Customers/Distributors
  7. Creditors/Financial Institutions/Bond Holders
  8. Business competitors
  9. Mass Media

Note:
The first three major stakeholders of the Company.

The Company has prioritized all nine groups of stakeholders by establishing guidelines for engaging with them. These guidelines encompass creating engagement to address stakeholders' concerns or expectations that are impacted or may be impacted by the Company's operations. They also entail fostering cooperative relationships to generate mutual benefits between the Company and all groups of stakeholders, as well as consistently and effectively improving channels for conveying stakeholders' feedback to the relevant departments. The operational guidelines are as follows:

Table: Guidelines for engaging with stakeholders of TPI Polene Power Public Company Limited

Stakeholders	Guidelines for engaging with stakeholders	Concerns/Expectations	Approaches to response
1. Community and Society - Local communities surrounding the establishments/societies who access goods and services 	• Complaints and communication channels such as websites, email, telephone, letters, etc. • Participate in community relations activities at least 28 times per month. • Organize public relations at least 22 times per month.	• Pay attention to community and social feedback. • Keep developing communities and supporting their activities. • Preserve the community environment. • Create jobs and strengthen the economy for the community.	• Explore community and social concerns that may be affected by the Company's business operations. • Care for the community and society. • Allocate budgets to support public projects and activities for the community, including the education of youth in the community. • Projects to support or participate in solving social problems, including creating jobs, creating careers, and creating sustainable income for the community.
2. Employees - Full-time and Contract Employees 	• Collect information from all channels including complaints. • Communication within the organization through various channels, such as creating a Line chat group for top executives to communicate with all employees, specific Line chat groups to related management, internal memo circulated to employees in each department, announcement notice board in the establishment. • Workplace Welfare Committee • Occupational Safety, Health and Working Environment Committee • Annual Information Disclosure Form /Annual Report (Form 56-1 One Report) • Sustainability Report • Executives meet with employees at the plant once a week. • Provide clear communications within the organization through channels such as notifications to the departments within the Company and Line App. • Website comment box, email, Facebook • Performance appraisal 3 times a year	• Compensation and welfare that are consistent with the industry are appropriate and fair. • The organization is stable and progressive in work. • Potential development for stability and opportunities for career advancement • The organization has a good image. • Fair performance appraisal system • Occupational safety and quality of work life • Provide opportunities to express opinions, the right to freedom of association, and the ability to engage in collective bargaining. • Providing equal and fair opportunities for employment and career advancement without discrimination. • Respect for human rights and personal data.	• Treat employees fairly in accordance with human rights principles with equality, without discrimination, child labor, forced labor and migrant workers, including protecting personal information. • Skill development and promotion of employee advancement through training courses. • Motivate and retain employees by assessing their performance with clear criteria to determine fair remuneration and welfare that are comparable to other companies in the same industry. • Measure the level of satisfaction and engagement of employees towards the organization. • Provide good occupational health and safety system. • Provide channels for opinions and suggestions.

Stakeholders	Guidelines for engaging with stakeholders	Concerns/Expectations	Approaches to response
3. Governances/related public agencies/regulatory agencies/local public organizations 	• Report business performance to public agencies according to the period specified by the government as follows: - Report the performance of safety officers in professional work every 3 months. - Report on compliance with EIA measures of the Company every 6 months. - Report Service standard of power operation to Energy Energy Regulatory Commission of Thailand (ERC) once every 3 months • Be a place to visit and study business visits 12 times in 2023 • Monitor policies, regulations, government requirements at least once a month. • Prepare project performance reports, both in terms of construction and operation reports to public agencies. • Support hygienic waste management for public agencies/local administrative authorities.	• Compliance with rules, regulations, laws and policies of regulatory agencies • Be responsible to the community, society and environment. • Sponsorship and cooperation with public agencies • Actions to mitigate climate change problems • Payment of taxes, related fees	• Comply with rules, regulations and laws. • Conduct business with responsibility to the community society and environment with sustainable good corporate governance. • Cooperate policy support and projects of public agencies appropriately.
4. Shareholders / Investors/ Analysts/ Credit Rating Agency 	• Annual General Meeting of Shareholders • Opportunity for shareholders to attend the annual shareholders' meeting such as questioning and voting. • Presentation of information for investment to investors and analysts through investor relations activities at least 7 times a year. • Annual Information Disclosure Form /Annual Report (Form 56-1 One Report) • Provide communication channels through media including website, letter, email, telephone or others at least 20 times per month. • Annual Sustainability Report • Financial Report 4 times a year	• Good performance, stock prices and dividends are at a reasonable level and financially stable. • Operations are transparent and the business continues to expand. • Disclosure of important information of the Company with accuracy, completeness, timeliness, transparency, and reliability through channels that are easily accessible to shareholders. • Conduct business with environmental, social, governance or ESG considerations. • Provide effective risk management system • Opportunity for shareholders to attend the annual shareholders' meeting and activities to engage and maintain good relations with shareholders.	• Manage the organization according to the vision under the BCG and ESG policies under good corporate governance. • Manage the efficiency of power generation and distribution to create long-term income stability. • Manage the innovations and technology, including research and development for business expansion. • Follow the policies to maintain liquidity and strengthen financial stability. • Conduct proper all-round risk management • All shareholders have rights and are treated equally. • Clarify sufficient details regarding the shareholders' meetings, as well as all information relating to matters requiring shareholders to make decisions at the meetings in advance.

Stakeholders	Guidelines for engaging with stakeholders	Concerns/Expectations	Approaches to response
5. Suppliers and Contractors - Manufacturers / sellers and service providers, including raw materials, machinery and equipment / contractors for the projects 	• Complaints and communication channels such as websites, email, telephone, letters, etc. • Relationship building activities with suppliers at least once a year to create engagement. • Conduct meetings with suppliers at their premises at least twice a year. • Business negotiations, exchange of information and business opinions at least twice a year.	• Procurement system that is transparent, fair, non-discriminatory, free from corruption • Build relationship to grow together • Comply with the agreed terms, never take advantage of customers, and make payments on time. • Respect human rights and personal data, ensuring no infringement on the privacy of partners and maintain an appropriate occupational health and safety system in the work environment.	• Conduct business together according to the Supplier Code of Conduct with strict equality. • Taking into account social issues and environment in procurement • Follow-up on compliance with the Supplier Code of Conduct • Determine a fair payment period to suppliers so that they have financial liquidity and is capable of continuing their business.
6. Customers and distributors - Major customers including Electricity Generating Authority of Thailand and the Provincial Electricity Authority (EGAT and PEA) 	• Visit and meeting once a year • Business visits once a year • Conduct activities with clients at least twelve times per year • Project production report to be prepared and submitted to EGAT once a month. • Conduct customer satisfaction assessments for power plants twice a year • Conduct customer satisfaction assessments • for waste fuel products twice a year • Complaints and other communication channels such as website, email, telephone, letter, etc.	• Offer electricity at fair and appropriate prices • Stable and safe power generation and delivery with uninterrupted power supply • Power generation with environmentally friendly technology that does not cause any impact on communities and society • Compliance with agreements and contracts • Give importance to listening and responding to complaints. • Respect for human rights without infringing upon the personal data of customers, prioritizing the importance of listening and responding to complaints.	• Generate and deliver stable and safe electricity for uninterrupted power supply. • Quality and efficient power generation with modern, environmentally friendly technology which does not cause any impact on the community and society. • Compliance with fair trade agreements and contracts, selling electricity at right and reasonable prices. • Strict compliance with business ethics including protection of customer information • Respond to the policy to reduce the use of highly polluting coal fuel and pay attention to the use of renewable energy as fuel.
7. Creditors / financial institutions / debenture holders 	• Submit a quarterly financial statement report. • Annual Registration Statement/ Annual Report (Form 56-1 One Report) • Sustainability Report	• Good corporate governance • Manage with transparency • Manage risks prudently • Payment in full and on time • Good performance, liquidity and solvency	• Conduct business with transparency and accountability under good corporate governance. • Comply with the conditions of the loan agreement and debentures. • Full disclosure of the Company's information and its financial information
8. Competitors - Businesses in the same industry 	• Collect information from all channels such as websites, letters, telephone, etc.	• Establish conditions for fair competition • Maintain market share	• Conduct business in accordance with the Code of Conduct, within the framework of free and fair competition, avoiding infringement of intellectual property and copyright of competitors and not violating competitors' confidential information.

Stakeholders	Guidelines for engaging with stakeholders	Concerns/Expectations	Approaches to response
9. Press and media 	• Occasional business visits and activities for the community and society • Support media activities in line with company policy Benefits to the community and society • Regularly disseminate information and news that is beneficial to the Company. • Annual Information Disclosure Form /Annual Report (Form 56-1 One Report) • Sustainability Report • Quarterly earnings press conference • Participate in the Opportunity Day of the Stock Exchange of Thailand	• To be a company that conducts business with a focus on sustainable ESG.	• Conduct business with a focus on the community society and environment by appropriately and regularly disclosing and disseminating information that is beneficial to society.

In driving organizational sustainability, the Company promotes and supports employee engagement and proposal of ideas for ESG (Environmental, Social, and Governance) sustainability operations through various activities, such as

- Organizing workshops for employees to jointly identify issues that are material to the business.

- Organizing workshops for employees to jointly assess the significance of stakeholders and seek ways to collaborate to create benefits for all groups of the Company's stakeholders.

- Arranging for employees to complete an annual assessment of job satisfaction and employee engagement.

- Holding meetings for employees to jointly propose the Company's annual employee care project.

- Organizing TOTAL PREVENTIVE MAINTENANCE activities for employees to jointly propose improvement projects for machinery and various work procedures to enhance productivity and reduce waste.

- Holding an annual meeting for savings cooperative members, where they can jointly propose ideas and management guidelines beneficial to the cooperative.

- Arranging for employees to participate in other ESG activities alongside executives and local communities on appropriate occasions, such as the annual reforestation project and blood donations to the Thai Red Cross Society.

In addition, the Company has announced written guidelines for the treatment of each group of stakeholders, adhering to the principle of creating shared value between the Company and stakeholders. The top executives are responsible for overseeing the participation of all groups of stakeholders, including improving channels for expressing opinions. They are tasked with gathering stakeholder feedback and forwarding it to various responsible departments on an ongoing basis, particularly from stakeholders directly affected by the Company's business operations.

The Company established a policy for handling complaints and suggestions [2-25][2-26] by announcing the Company's Policy No. 007/2016 on receiving complaints/suggestions/whistleblowing channels that cause damage to the Company as a channel to effectively oversee the interests of the Company and to enable the Company to solve problems timely as well as to encourage its stakeholders to participate in the corporate governance process. In the event that stakeholders have inquiries or witness suspected misconduct, violations, or non-compliance with laws, rules, regulations, and business ethics, the Company has set up a grievance mechanism as detailed in the Flow diagram/Process for handling complaints From the process of receiving complaints to taking corrective actions and reporting back to relevant stakeholders as follows: [2-16]

1. Complainants, stakeholders, or the public may make complaints, suggestions, and report clues through the four channels specified by the Company, namely:

(1) Letter to the Vice Chairman

(2) Electronic mailbox (E-mail: orapin@tpipolenepower.co.th)

(3) Phone calls to the Head of Internal Audit, Head of Legal Department, Head of Human Resources (Head Office), or Head of Personnel and Administration (Plant)

(4) Comment Box

2. Screening complaints : Once the Company receives a complaint, it will ask the Human Resources Department, the Internal Audit Department, or the relevant departments to consider and screen the complaint, with a detailed examination of the clue or complaint to ensure that it is true, clear, or sufficient to ascertain the facts to proceed. In the event that there is no evidence, the complaint will be returned to the complainant or requested additional documents within 10 days.

3. Fact checking: In the case of receiving a complaint, it must be clear or sufficient to ascertain the facts. The Company will consider appointing executives from the Internal Audit Department, the Human Resources Department, and executives from other relevant departments to be the Fact-Finding Committee, who will be appointed from time to time by the President or Executive Vice President.

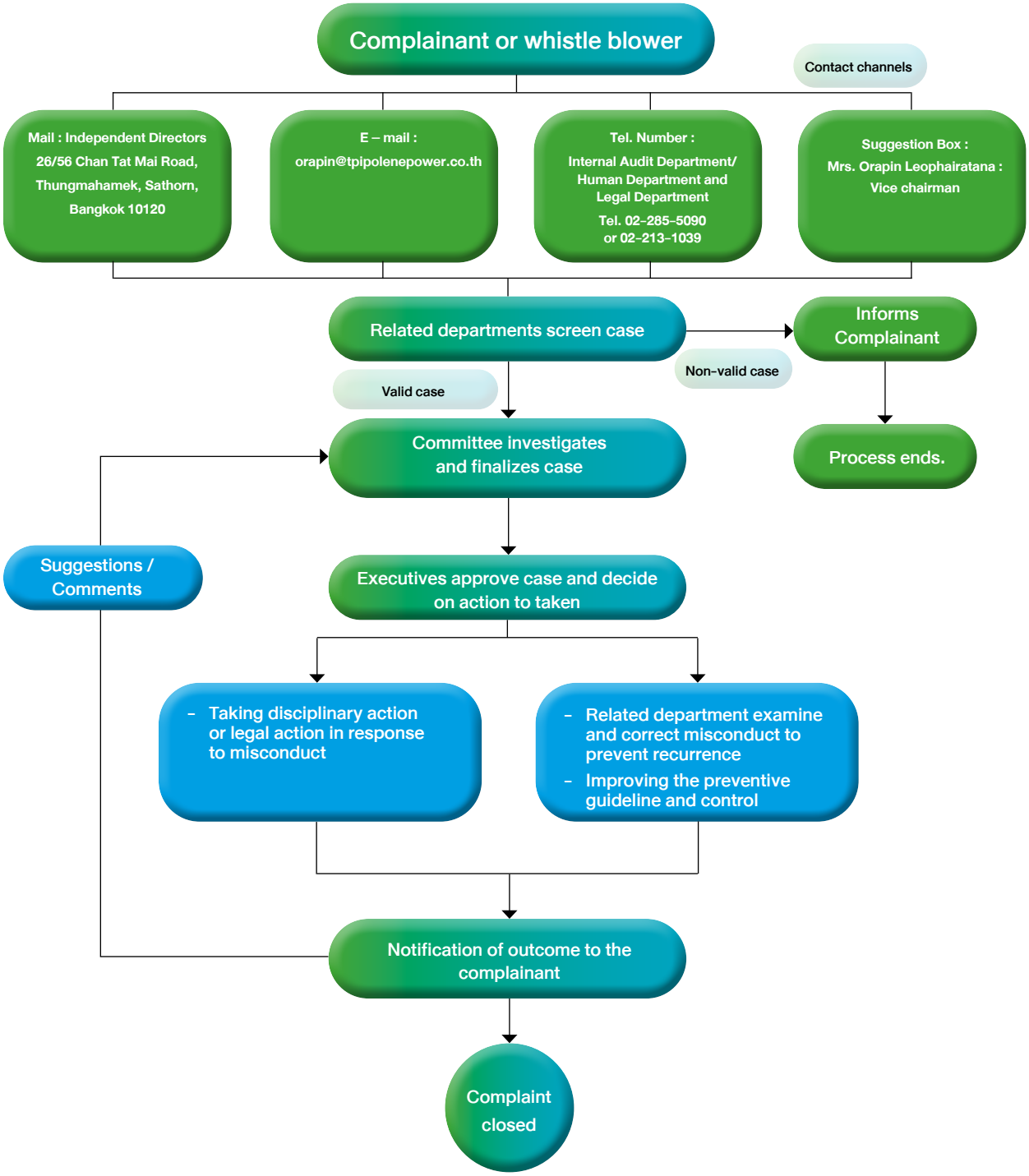
4. Fact-Finding Committee: The Company will proceed with the procedures for collecting facts, processing, and screening information to determine the appropriate management approach for each subject, as well as to propose disciplinary action or take legal action if misconduct is found and suggest and prevent the recurrence.

5. Result Report: Fact-Finding Committee is responsible for reporting results to the President or Executive Vice President in order to proceed as proposed by the Board of Directors or order as it deems appropriate.

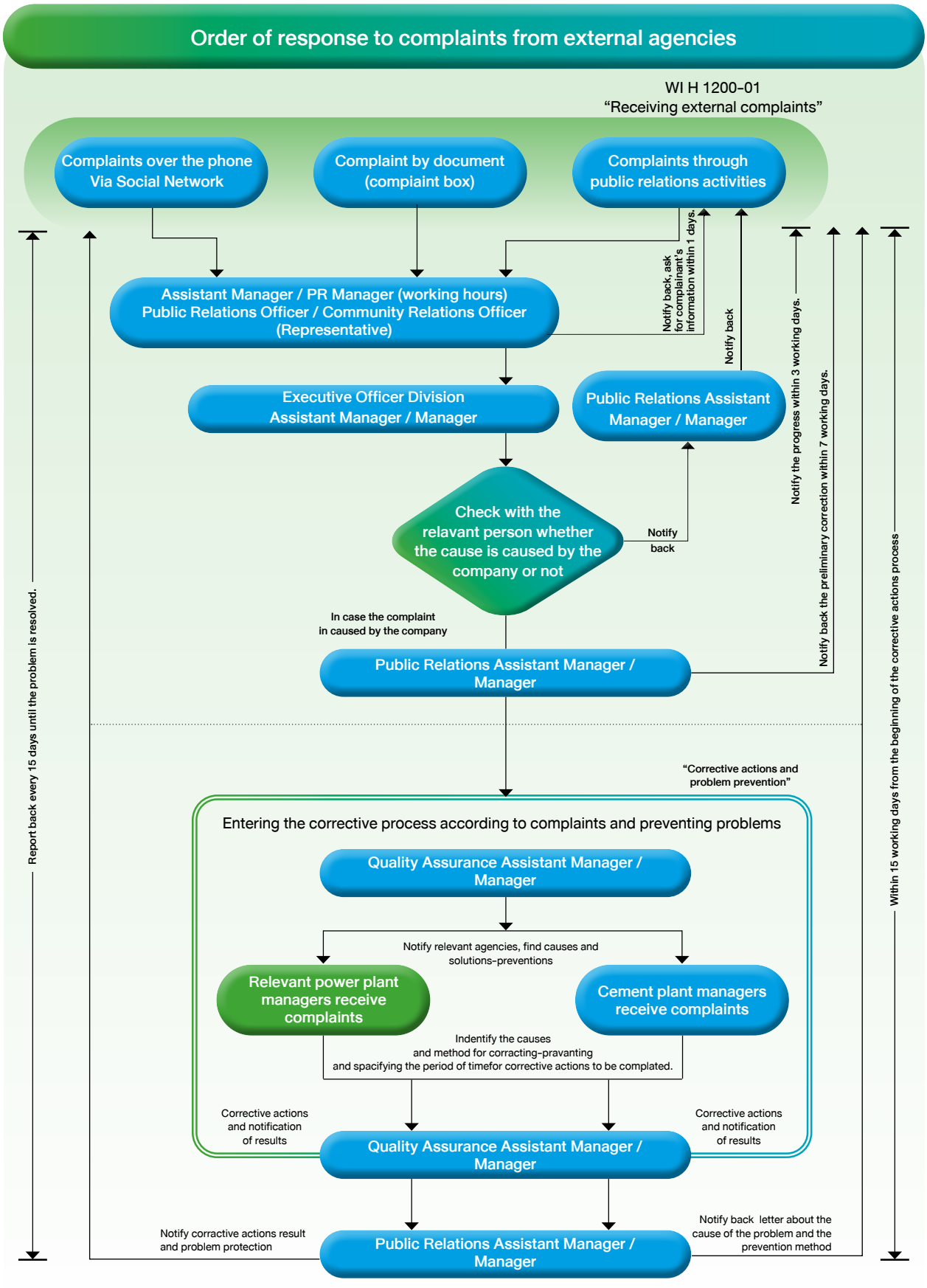
6. Implementation of inspection results and notify the complainant: When the relevant departments have taken action as instructed by the Company, it shall notify the Audit Committee to follow up on corrective actions, and improvements, and determine the operational guidelines that have been instructed until completion and notify the whistleblowers of the results of the action and provide comments or suggestions to improve the work ordering mechanism.

The Company has guidelines for protecting the rights of stakeholders that have been damaged by rights violations arising from the Company's business operations. Compensation for damages will be considered at a rate not less than the rate specified by law.

Complaint/Whistleblowing Process
In case of Violation of Ethics, Code of Conduct, Human rights, and Corruption



The Company has continuously and regularly organized activities in the factory area to build relationships with stakeholders, listening to their problems and addressing the associated impacts.



An official letter will be issued once the problem has been resolved.

In the process of the whistle-blowing complaint process, when the Fact-Finding Committee has informed the result of the action to the whistle-blower, it will inquire about satisfaction, and suggestions, and bring useful suggestions to revise and establish guidelines to make its operations more efficient, and when the Company's relevant departments have taken and improved the actions as instructed by the Company, it shall notify the Fact-Finding Committee to inspect and follow up on the results of the action to ensure efficiency and to prevent a recurrence and report the results to the Vice President for acknowledgment.

Complaint Channel	Number of Complaints in 2023	Percentage of Successfully Resolved Complaints
(1) Letter to the Vice President	0	0
(2) Electronic mailbox	0	0
(3) Phone calls to the Head of Internal Audit, Head of Legal Department, Head of Human Resources (Head Office), or Head of Personnel and Administration (Plant)	0	0
(4) Comment Box	0	0

Legal Compliance Performance [2-27]

In 2023, the Company investigated non-compliance with laws and regulations that may cause risks or affect the organization, including penalties in case of non-compliance with such laws.

Non-compliance with social and economic laws and regulations	Contexts resulting in significant fines or non-monetary penalties	Value of fine (baht)	Total amount of non-monetary penalties	Number of cases going through the dispute resolution process
0	0	0	0	0

Determination of Material Sustainability Issues [3-1]

In preparing the Sustainability Report 2023, the Company's senior management team, Sustainability Development Committee, and Sustainability Development Working Group adhered to the process of determining material issues based on the 2021 GRI Standards (Global Reporting Initiatives). This process takes into account the principle of Impact Materiality, aiming to disclose information about sustainability issues that hold high importance for the Company's business operations. Details of the content determination process are provided as follows:

Identification of Material Topics

The Sustainability Development Working Group has jointly identified issues affecting sustainability by considering information on sustainability operations from internal and external significant sources, provided by executives or representatives from relevant functions who directly receive information through relationships with the Company's stakeholders. Additionally, both actual and potential positive and negative impacts are identified, such as international standards related to sustainability for the power plant business. This includes details of important sustainability operations from the power plant business, vision, and key business strategies for 2023, as well as concerns and expectations of all relevant stakeholder groups. All stakeholder groups involved in determining material issues are taken into account to ensure that the Company thoroughly considers the concerns of all stakeholders. It was found that there are 24 material topics related to sustainability issues.

Prioritization

The Sustainability Development Working Group examined 24 material topics related to sustainability issues identified as significant to the Company. They collaborated to consider and screen these topics in order to identify the most critical issues and prioritize them using a Materiality Test tool. These considerations included primary impacts stemming from the Company's core business operations across economic, social, environmental, and human rights dimensions. This process encompassed five key areas:

1) Scale of Impacts (1 — 3 points)
2) Scope of Impacts (1 — 3 points)
3) Likelihood (1 — 3 points)
4) Intention and (1 — 3 points)
5) Framework for the implementation of issues related to driving the BCG Economy (0 — 3 points)

The average total score is calculated based on the assessment of the Sustainability Development Working Group across all 24 topics, summarized by priority as follows:

- High Significant Impact with a score range of 11 - 15 points, totally 16 topics
- Moderate Significant Impact with a score range of 5 — 10 points, totally 7 topics
- Low Significant Impact with a score range of 1- 4 points, totally 1 topic

Results of Sustainability Issue Prioritization

High Significant Impact	Moderate Significant Impact	Low Significant Impact
1. Climate Change Management 2. Economic Performance 3. Research and Development 4. Electrical System Efficiency 5. Availability and Reliability of the Electrical System 6. Energy Consumption 7. Technology, Innovation and Service 8. Risk and Crisis Management 9. Occupational Health and Safety in Working Environment 10. Participation in Community and Social Development 11. Procurement Practices 12. Anti-corruption 13. Indirect Economic Impacts (Investment in Basic Utilities for Society) 14. Customer Data Security and Privacy 15. Water Management 16. Garbage and Waste Management	1. Customer Satisfaction 2. Training and Education 3. Labor Management and Labor Relations 4. Employment 5. Role in the Market (Hiring Local Workers) 6. Non-discrimination 7. Diversity and Equal Opportunities	1. Security Practices (Providing correct security knowledge to security guards)

Validation [2-14]

The Senior Management Team and the Sustainability Development Committee jointly considered and assessed relevant sustainability issues according to the principles of Completeness and approved the issues to be implemented for identifying information to be disclosed (Validation) in the Company's Sustainability Report 2023, covering sustainability operations in environmental, social, economic, and corporate governance dimensions. There are 16 highly material sustainability issues for the Company, as follows:

Environmental aspect (4 topics)	Social aspect (2 topics)	Economic and corporate governance aspect (10 topics)
1. Climate Change Management 2. Energy Consumption 3. Water Management 4. Garbage and Waste Management	1. Occupational Health and Safety in Working Environment 2. Participation in Community and Social Development	1. Economic Performance 2. Indirect Economic Impacts 3. Research and Development 4. Technology, Innovation and Service 5. Electrical System Efficiency 6. Availability and Reliability of the Electrical System 7. Anti-corruption 8. Procurement Practices 9. Risk and Crisis Management 10. Customer Data Security and Privacy

Report dissemination channel

This report is available for download at http://www.tpipolenepower.co.th/index.php/en/en-investment/ar/sustainability

Contact for inquiries and suggestions [2-3]

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Environmental Impact Management

ENVIRONMENTAL PERFORMANCE IN 2023

Environmental Management

The Company and TPI Polene Public Company Limited, or the TPI Polene Group, recognize the importance of resource utilization in the context of global population growth. Resources are limited, and inefficient usage can lead to various problems, such as waste generation from consumption and shortages in production, particularly of non-consumable resources. Additionally, reliance on fossil fuels for energy significantly contributes to greenhouse gas emissions, exacerbating climate change issues. These challenges are critical on a global scale, impacting economic, social, and environmental dimensions both now and in the future, and they are significant and unavoidable.

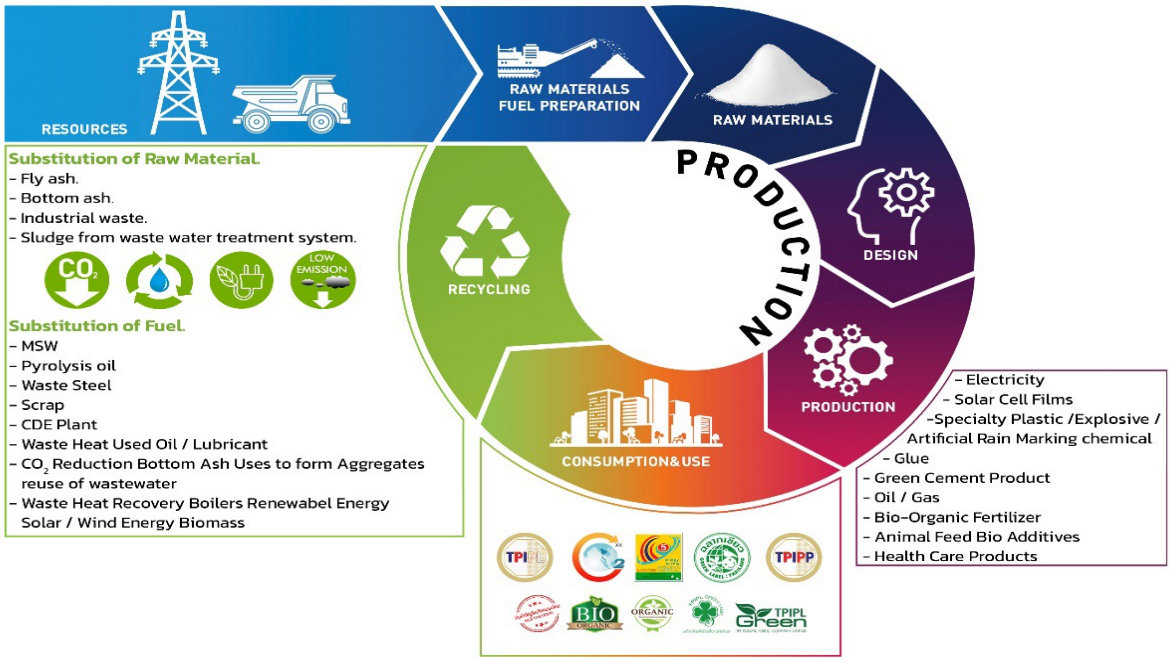
“We are leveraging the natural resources of our children and grandchildren.” This statement reflects the necessity to raise awareness of this issue and the pursuit of addressing concrete challenges. TPI Polene Group has committed to actively participating in their resolution for our world under the principles of the Circular Economy. This commitment begins with research and development planning, the production process, and products destined for consumers. The aim is to instill circularity in the utilization of natural resources, employ renewable fuels, manage the enhancement of leftover products from production processes, and implement effective waste management for reuse. Through these efforts, the Company strives to maximize the utilization of resources and promote sustainability within its supply chain, in collaboration with the business sector, society, and the community.

Management Guidelines

TPI Polene Group aims for sustainability to create a balance in terms of the economy, environment, and society under good corporate governance (ESG), by integrating all three aspects of operations, including Circular Economy, Green Economy, and Bio-Economy, collectively referred to as the Bio-Circular-Green Economy (BCG), to be implemented at every step of the value chain. The Company intends to utilize waste fuel to replace coal in cement and electricity production processes, aiming to conduct electricity production business by 100% transitioning from coal sources to renewable and clean energy sources, focusing on a clean and green industrial business that generates no greenhouse gas emissions and is environmentally friendly.

TPI Polene Group Conducting Business Based on BCG and ESG Guidelines

TPI Group Carbon Neutrality by 2043



TPI Polene Group has prioritized sustainability policies and business operations based on BCG and ESG guidelines, including a carbon neutrality campaign, saving the world campaign, and a ZERO WASTE campaign throughout the Group's production processes. The use of hydraulic cement instead of Portland cement is actively encouraged and supported due to its lower proportion of clinker, resulting in reduced carbon dioxide emissions. Consequently, when hydraulic cement is utilized as a raw material for constructing green buildings according to LEED and TREES standards, it contributes to a decrease in greenhouse gases and mitigates global warming. Additionally, starting from 1 June 2023, TPI Polene Group has implemented a policy to manufacture products aimed at reducing greenhouse gas emissions. This involves increasing the production of Green Products such as Green Clinker, Green Cement, Green Fiber Cement, and Green Concrete Roof Tiles (Green CRT). These products utilize alternative raw materials, alternative fuels, and electricity sourced from renewable energy, thereby further reducing greenhouse gas emissions.

TPI Polene Group has been involved in every stage, from research and development to resource procurement, encompassing raw materials for production and energy. The Company efficiently utilizes resources, maximizes recycling efforts, and maintains high production efficiency. Through effective resource utilization and environmental preservation, it produces environmentally friendly green products. Consumers of these products are viewed as contributors to building a greener world, extending to sales, transportation, and service.

The Company has identified four sustainability issues with high materiality concerning the environment in 2023 as follows:

1. Climate Change Management
2. Energy Consumption
3. Water Management
4. Garbage and Waste Management

1. Climate Change Management (3-3)

The Company, as a producer and distributor of electricity, has continuously placed importance on addressing problems arising from the impacts of climate change. It has set a goal of achieving carbon neutrality by 2037 by managing and disclosing climate information according to the Task Force on Climate-Related Financial Disclosures (TCFD)**, which consists of four main elements: Governance, Risk management, Strategy, and Metrics and Targets. Details are as follows:

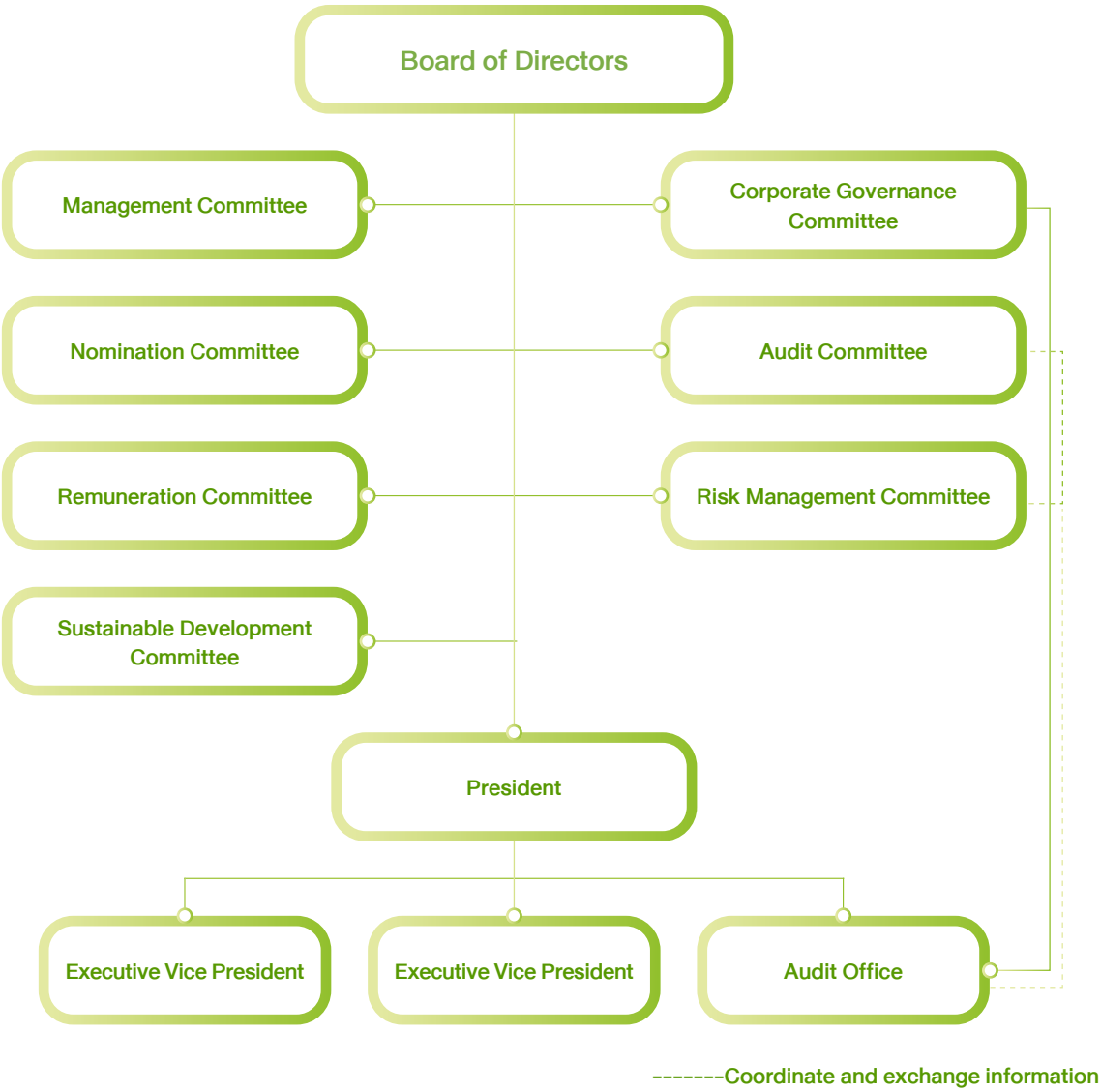
**** Further information is available in TCFD Report on the Company's website:**

http://www.tpipolenepower.co.th/index.php/en/en-investment/tcfd-en

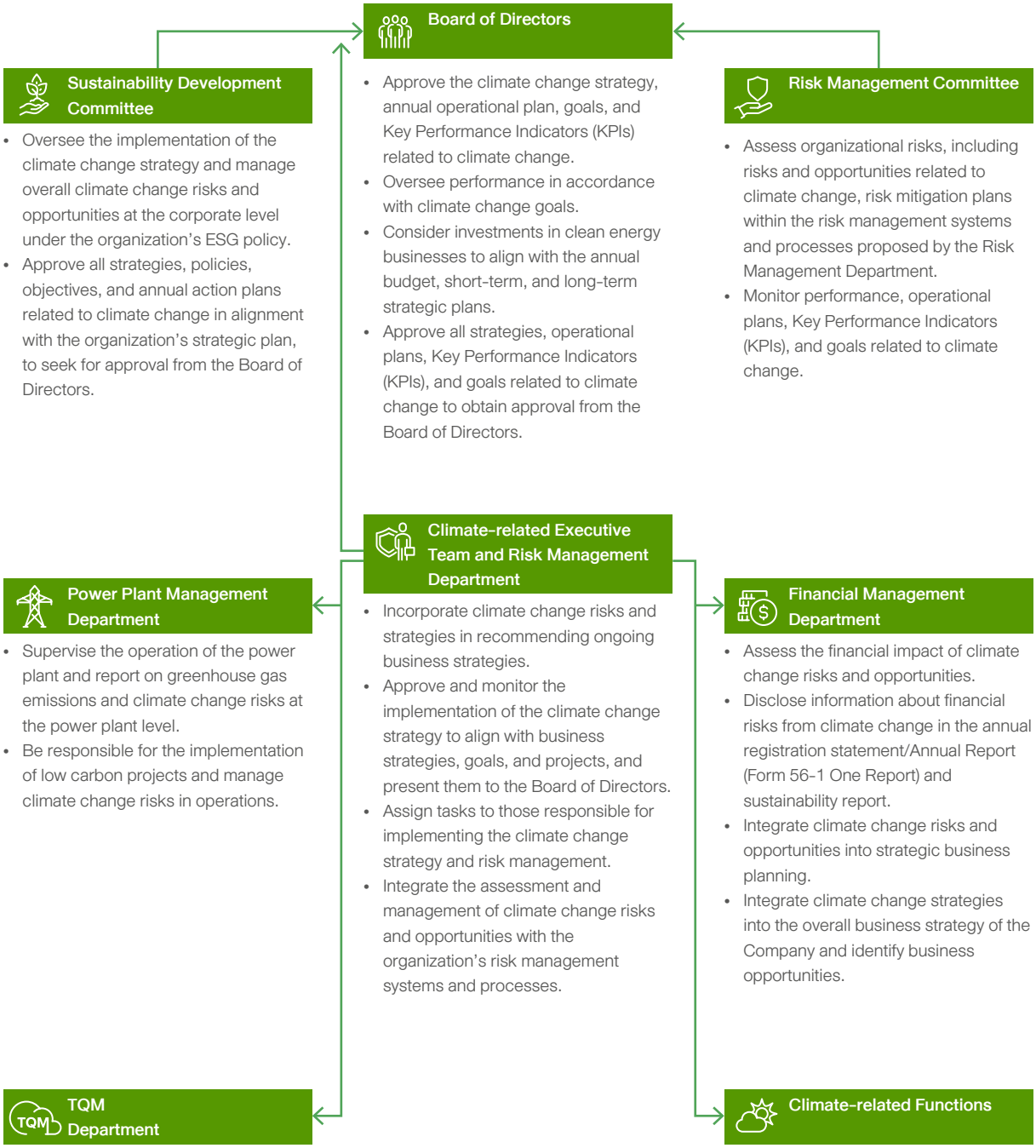
Governance

The Company recognizes the important role the energy sector plays in driving solutions to climate change and the transition to a low-carbon economy and society. Therefore, the Company has integrated climate change management into its organizational structure, starting at the Board of Directors level and extending to related committees, including the Sustainability Development Committee and the Risk Management Committee, which falls under the purview of the Board of Directors and functions responsible in supervising climate change. The Company has established Key Performance Indicators (KPIs) comprising leading indicators and indicators of risk management. Climate change performance has been determined as a KPI at the organizational level for assessing and monitoring climate risks and opportunities to meet set goals. Employees are encouraged to utilize these risk indicators in their operations. Regular monitoring, evaluation, and reporting to the Board of Directors and related sub-committees are conducted, with the following details:

CORPORATE STRUCTURE



TPIPP's Climate Change Governance



Climate Change Risk Management

The Company has established an integrated approach to organizational risk management in accordance with the principles of The Committee of Sponsoring Organizations of the Treadway Commission - Enterprise Risk Management (COSO-ERM). This approach is aimed at cultivating a culture conducive to the integration of strategic objectives and operational performance in risk management, incorporating the assessment of climatic risks within the standard evaluative framework of organizational risks.

From the risk assessment, it was found that physical risks, such as water shortages and floods, are classified as medium-level basic risks and low-level risks, respectively, not causing any problems for the Company. This is because the Company is able to continually assess the situation and implement measures to mitigate them. Legal risks, such as regulations regarding greenhouse gas emissions control through mechanisms like carbon taxes, and the use of a carbon tax as a tool for trade barriers through the Carbon Border Adjustment Mechanism (CBAM), as well as support for the use of electric vehicles, clean energy, etc., all pose high risks to the fossil fuel electricity production business. However, they pose low to moderate risks to the supply chain. Furthermore, they present an opportunity for low-carbon electricity production businesses.

Company's Risk Management Process

Scenario Analysis

In 2023, TPIPP has broadened its focus to assess climate change risks and opportunities comprehensively. This expansion aims to identify, assess, and manage potential impacts more efficiently by reviewing and categorizing climate change risks in each relevant scenario. This encompasses both risks and opportunities in transition and significant physical properties. The Company has collected and summarized information assessing the risks of climate change as follows:

Timeframe:

- Short-term: 1-4 years
- Mid-term: 5-10 years, showing results for the year 2030 in assessing impacts and prioritizing operations to mitigate those impacts.
- Long-term: more than 10 years, showing results for the year 2050 to align with the TPIPP Group's goal of carbon neutrality.

Scope:

- The transition risk assessment covers all of the Company's operations, while the physical risk assessment covers all operational areas of business, considering the impacts of climate change on TPI Group's business operations in three areas: fossil fuel production, renewable energy production, and the supply chain.
- The impacts of climate change are assessed, covering three business operation areas: electricity generation from fossil fuels, electricity generation from green energy sources, and the supply chain.
- The impact on business operations and the value chain is assessed.

Physical Scenario:

- Baseline: Historical data of Saraburi area
- IPCC RCP 2.6: The scenario is employed to evaluate physical phenomena under the assumption that the transition to a low-carbon society is in place and that the goals of the Paris Agreement are achieved, resulting in a change in the global average temperature of 1.6 °C in 2050.
- PCC RCP 8.5: The scenario is employed to evaluate physical phenomena under the assumption that the world's situation is at its worst, resulting in a change in the global average temperature of 4.3 °C in 2050.

Transition Scenario:

- Stated Policies Scenario (STEPS): The scenario assumes that the governments of all countries around the world can uphold their commitments to address the climate change issue and achieve net-zero greenhouse gas emissions within a specified timeframe. The global temperature is projected to increase by approximately 2.6 °C by 2100 in this scenario.
- Net Zero Emission 2050 Scenario (NZE 2050): The scenario assumes that the goals of the Paris Agreement are successfully achieved. This includes limiting the global temperature rise to no more than 2 °C, reaching net-zero global greenhouse gas emissions by 2050, and ensuring that global surface temperatures do not rise more than 1.5 °C by 2100.

Risk Assessment

Physical risk assessment includes the power plant and MSW fuel production plant located in Thap Kwang Sub-district, Kaeng Khoi District, Saraburi Province, Thailand. The assessment utilizes Think Hazard to evaluate the baseline danger level (BSL) and the Climate Change Knowledge Portal by the World Bank (CCKP) in the transformation project under the RCP 2.6 and RCP 8.5 scenarios for 2030 and 2050

Physical Risk Prioritization from Climate Change

Physical Risk	Impact on Business Operations	Supporting Measures
1. Water shortage	In the production process, due to the drought crisis, when assessing danger levels in 2030 and 2050 under both RCP2.6 and RCP8.5 scenarios, a slight decrease in danger was observed. However, given the moderate baseline danger level, this could lead to potential business interruptions, affecting the operational reliability of the Company, or increased production costs due to higher water supply expenses.	1. Continuously monitor the news and assess the drought situation to align with the reserved water levels. 2. Regularly measure the water level in the factory's reservoir to assess its adequacy for use. 3. Enhance water use efficiency in the production process by recycling water and refraining from releasing used water. 4. The Company assessed water stress in the power plant area using Program AQUEDUCT and identified it in the Medium-High range (20-40%). According to the definition, this doesn't qualify as being in an area with significant water stress.
2. Flooding	In both RCP2.6 and RCP8.5 scenarios, the danger levels in 2030 and 2050 will increase insignificantly for the Company. However, given the low baseline danger level, there is a possibility of delays in fuel delivery by suppliers to the Company, which could impact the electricity generation process.	Monitor the news and assess weather forecasts to prepare for fuel reserves delivered from customers before flooding occurs, thereby minimizing the impact on the electricity generation process.

Impacts potentially caused by risks and opportunities related to climate change in various areas are as follows:-

Opportunities and risks from climate change	Impacts	Supporting Measures
1. Carbon Tax Price (Risk)	The Company's operating expenses will increase in proportion to the amount of greenhouse gas emissions.	1. Evaluate the organization's greenhouse gas emissions to ensure consistency with policies and laws regulating emissions within the country and in the territories of trading partners, both those currently determined and those anticipated in the future. 2. The Company establishes strategies to advance the Bio-Circular Green Economy (BCG) in order to define the scope of applying circular economy principles in its operations and to raise awareness among personnel regarding limited resources.
2. Fuel Prices (Risk)	The Company's operating expenses will increase due to higher fuel prices.	The Company formulates strategies to utilize waste fuel as a substitute for fossil fuels, aiming to lower production costs and mitigate greenhouse gas emissions (Scope 3) associated with fuel transportation.
3. Growth in electricity generation from renewable energy sources (Opportunity)	The Company's income increases due to the growing demand for electricity from renewable energy sources.	The Company establishes plans and strategies for climate management, aiming to invest in clean technologies such as renewable energy projects and initiatives to reduce fossil fuel usage.
4. Application of Carbon Capture Utilization and Storage (CCUS) Technology (Opportunity)	The investment in such technology remains expensive.	Study Carbon Capture Utilization and Storage (CCUS) Technology. The Company formulates its innovation strategies to respond to the needs of its stakeholders, with a focus on enhancing efficiency in the production process and augmenting product values. Additionally, it incorporates the use of Carbon Capture Utilization and Storage (CCUS) technology to decrease greenhouse gas emissions, leading to a reduction in the CFP value of the products and the CFO value when the investment in such technology becomes cost-effective.

Strategies on Climate Change

The above risk assessment leads to the development of climate change strategies, serving as guidelines for mitigating the impacts of climate change issues and supporting the Company's adaptation efforts. The strategies on climate change aim to reduce greenhouse gases and consist of six main areas, as follows:-

Increase in production efficiency (greenhouse gas emission reduction)

Applying TPM (Total Productive Maintenance) system in electricity production to reduce the occurrence of breakdowns.

Reduction of electricity production from the use of fossil fuels

Reducing the use of fossil fuels in electricity generation.

Increase in municipal solid waste collection to boost the production of waste fuel

Increasing the amount of Carbon Credits by producing MSW (Municipal solid waste) from municipal waste instead of releasing greenhouse gases from landfills.

Increase in investments in electricity production from renewable energy

Increase in electricity production from renewable energy, including energy from MSW (Municipal solid waste) fuel, solar energy, and wind energy.

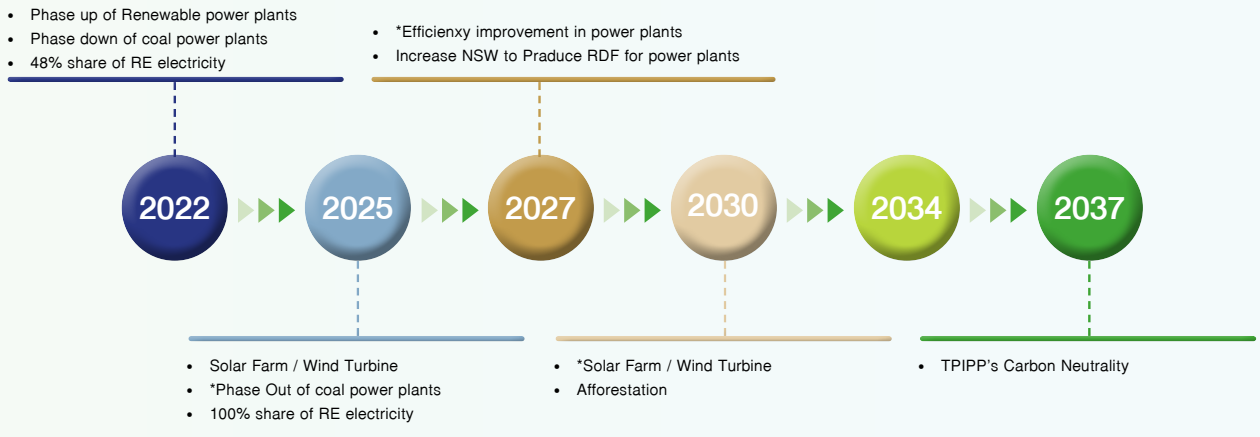
Increase in forest planting areas

Increase in forest planting areas to absorb greenhouse gases in the atmosphere

Carbon offset and trading

Applying for Renewable Energy Certificate (REC) / Purchasing carbon credits

TPIPP's GHG Reduction Strategies



Climate Change Goals

Strategy	Performance in 2023	Goals in 2025	Goals in 2043
1. To establish the proportion of fuel for electricity generation	• Total production capacity is 440 megawatts. • Proportion of fossil fuels is 34.09%. • Proportion of renewable energy is 65.91%.	• Total production capacity is 505 megawatts. • Proportion of fossil fuels is 0 %. • Proportion of renewable energy is 100%	• Total production capacity is 2,205 megawatts. • Proportion of fossil fuels is 0 %. • Proportion of renewable energy is 100%
2. To reduce the amount of greenhouse gases	• The amount of greenhouse gas emissions is reduced by 739,424.12 TonCO2e, accounting for 27.11% compared to the base year of 2022. • The amount of greenhouse gases per unit of electricity generated is decreased by 21.86% compared to the base year of 2020.	• The amount of greenhouse gas emissions is reduced by 2,686,344.08 TonCO2e, accounting for 73.36% compared to the base year of 2020. • The amount of greenhouse gases per unit of electricity generated is decreased by 85.23% compared to the base year of 2020.	• The amount of greenhouse gas emissions is reduced by 3,612,365.32 TonCO2e, accounting for 100% compared to the base year of 2020. • The amount of greenhouse gases per unit of electricity generated is decreased by 100% compared to the base year of 2020.
3. To increase the collection municipal waste(MSW) to manufacture waste-based fuel production	• Collecting 2.77 mill. tons of municipal waste(MSW) to manufacture waste-based fuel production.	• Collecting at least 4.80 mill. tons of municipal waste(MSW) per year to manufacture waste-based fuel production.	• Collecting at least 5.44 mill. tons of municipal waste(MSW) per year to manufacture waste-based fuel production.
3.1 Reduce the amount of greenhouse gas emissions from landfills by at least 6.2 million tons of CO_2 equivalent per year (1 ton of community waste emits CO2 equal to 2.32 tons/year).	• Process approximately 2.77 million tons of all types of waste into fuel in the Company's power plants, and sell it to cement plants of TPI Polene Public Company Limited. This can help reduce greenhouse gas emissions by approximately 6.43 million TonCO_2e.		
3.2 Receive additional Carbon Credit of at least 180,000 TonCO_2e per year.	• In 2023, the Company was registered by TGO to certify an additional 793,932 tons CO2e in carbon credits, bringing the total amount of carbon credits included with the balance brought forward in 2022 of 765,297 tons CO_2e, to a total of 1,559,229 tons CO2e.	• The Company received an additional Carbon Credit of at least 300,000 tonsCO_2e per year.	
4. To increase greenhouse gas storage by planting forests and applying CCUS	• The amount of greenhouse gas stored is 1,554,722 TonCO_2e	• The amount of greenhouse gas stored is 2,423,994 TonCO_2e	• The amount of greenhouse gas stored is 3,546,758 TonCO_2e
5. To apply for Renewable Energy Certificate (REC)	• To apply for Renewable Energy Certificate (REC) for 1,448,191.774 RECs.	• To apply for Renewable Energy Certificate (REC) for 1,400,000 RECs/year	• To apply for Renewable Energy Certificate (REC) for 1,600,000 RECs/year.
6. To disclose information	• Sustainability Report according to GRI Standard and 56-1 One Report	• Sustainability Report according to GRI Standard • 56-1 One Report • Participating in the sustainability assessment of organization both domestically and internationally	• Sustainability Report according to GRI Standard, 56-1 One Report or as related. • Carbon Disclosure Project (CDP) • Participating in the sustainability assessment of organization both domestically and internationally

Further information is available in TCFD Report on the Company's website:

http://www.tpipolenepower.co.th/index.php/en/en-investment/tcfd-en

Key Operations (305-5)

TPI Polene Power Public Company Limited has set a target for carbon neutrality by the year 2037. To this end, TPI Polene group has developed a strategic roadmap targeting carbon neutrality by 2043 across its subsidiary companies. The details are as follows :

1. **Saving in cement & binders** involves the development of new innovations aimed at reducing reliance on clinker and increasing the utilization of alternative substances in cement production processes. This includes promoting low-carbon cement, such as developing hydraulic cement as a substitute for Portland cement Type 1, which is projected to significantly reduce greenhouse gas emissions and contribute to sustainable development in the cement and construction industry in the future.
2. **Savings in clinker production** by reducing fossil fuel consumption during clinker combustion processes, with a shift towards biomass fuels, industrial waste-derived fuel, or municipal waste-derived fuel. This process was commenced in 2021 and to be completed by 2023.
3. **RE100 — Electricity Energy use 100% Renewable Energy :** The TPI Polene Group has established plans and actions, aiming for a complete transition to 100% renewable energy as follows:

a. Converting waste heat into electricity through recovery techniques

b. Using biomass fuel, industrial waste-derived fuel, or municipal waste-derived fuel as substitutes for coal in power generation processes, outlined in the projects below:

i. The transition from coal to municipal waste-based fuel in B6 boiler, which generates steam for a waste-to-energy plant operating at 55 bar steam pressure using alternative fuel derived from municipal waste, started in 2023. Additionally, a new boiler project, designed for a 132 bar pressure to supply steam for a 150 MW power plant, will use municipal waste as a complete substitute for coal. This project is expected for completion and full replacement by waste-based fuel by 2025.

ii. A plan to transition from coal to biomass fuel in a 6 MW power plant in 2023.

c. The Solar Farm, an electricity generation plant utilizing ground-mounted solar panels, capitalizing solar energy as a cost-free primary energy source. The Company employs durable solar panels with long service life for electricity production. The construction phase of the project was scheduled in the year 2023, with operational commencement for electricity production set for 2024.

d. The Solar Roof project involves the installation of solar panels on rooftops to generate electricity from solar energy. Solar modules, positioned on the factory buildings' rooftops, are engineered to capture sunlight, converting it into electrical charges. These charges, driven by the cell's internal electric field, produce direct current (DC) electricity, which is transformed into alternating current (AC) electricity through an inverter for practical use. The construction phase of the project was scheduled in the year 2023, with operational commencement for electricity production set for 2024.

e. Wind Power Electricity generation Project aims to utilize wind energy for electricity generation. The core machinery, the 'wind turbine,' transforms the kinetic energy of wind into mechanical energy, as the motion of wind rotates the turbine blades around a rotor, driving a generator to produce electricity. Wind energy, characterized by its natural origin, cleanliness, and inexhaustibility, enables electricity generation without emitting pollutants or greenhouse gases, ensuring environmental safety. The construction phase of the project was scheduled in the year 2023, with operational commencement for electricity production set for 2024.

f. Under the RE100 (The transition to 100% renewable energy sources) framework, the TPI Polene Group commits to utilize electricity from renewable clean energy sources for its cement production processes, along with the strategic procurement of Renewable Energy Certificates (RECs) to ensure that cement production is powered purely by renewable energy sources.

4. EV Mining Trucks : TPI Polene Group has transitioned the method of limestone transportation from diesel and NGV-powered mining trucks to electrically driven mining trucks (EV Mining Truck) with a capacity of 60 tons, totaling 41 units, for transporting limestone to the cement plant between 2022 to 2024.

5. Energy efficiency programs aim to reduce energy consumption. The details are as follows:

a. The Regenerative Downhill Conveyor project is an innovative electrical generation system through a conveyor belt system, transitioning from truck-based raw material transportation to conveyor belts. This transition not only results in energy savings and a reduction in both transportation and maintenance costs but also captures the gravitational energy from the conveyance of limestone from limestone transported down from mines located at higher elevations, which is characteristic of a Downhill Conveyor, to generate electricity. This has led to a considerable reduction in the Company's energy costs previously incurred from diesel fuel for raw material transportation, while simultaneously producing electricity that can be reintroduced into the electrical supply system.

b. Polytrack Grate is a new aeration technology with reduced pressure that provides consistent aeration with low energy consumption (reduce at least 1 kWh per ton of clinker). This results in energy savings and can also reduce wear and tear on the machine due to the reduced air velocity through the vents, thus reducing maintenance costs. Currently, the Company can reduce energy costs from using coal and can also save electricity.

6. Recycle Raw Materials by installing the CDE Plant, as a washing recycle plant enables the cleaning and recycling of soil and stone residuals from mining operations into usable stone for cement production. This enables the Company to reduce the amount of mining waste and reduce the cost of raw material production. It is a circular process that allows leftover resources from production to be reused effectively.

7. Afforestation to help absorb greenhouse gases released into the atmosphere: TPI Polene Group has engaged in continuous afforestation activities from the year 1992 to the present, committed to expanding the nation's forests for greater absorption of greenhouse gases.

8. Carbon Capture & Utilization/Storage (CCUS) Technology: This involves a detailed study of technology for capturing, utilizing, and storing carbon dioxide emissions from power plants, aiming to capture carbon dioxide from high-pitched smokestacks at power plants and storing them underground or beneath the ocean floor, preventing CO2 from entering the atmosphere. This study serves as a provisional plan for potential future investments in the event that existing processes for reducing greenhouse gas emissions prove insufficient, and the technology offers cost-effectiveness for future investment.

In 2023, the Company initiated a waste fuel production project aimed at benefiting the country as a whole. The Company separates community waste and utilizes it as an alternative fuel instead of sending 2.77 million tons of municipal waste to landfills, the country stands to mitigate the release of greenhouse gases from landfills into the atmosphere by up to 6.43 million tons CO2e. According to the Thailand Voluntary Emission Reduction Program (T-VER), the conversion of one ton of fresh municipal waste or municipal waste into waste fuel can curtail greenhouse gas emissions by at least 0.49 tons CO2e. Conversely, landfill disposal of this waste would contribute to methane gas emissions, which possess a global warming potential 28 times that of carbon dioxide. Hence, for every ton of garbage sent to a landfill, carbon dioxide gas equivalent to 2.32 tons CO_2e would be released.

Last year, The Company has been registered for carbon credits by the Greenhouse Gas Management Organization (Public Organization), totaling 1,559,229 tons of carbon dioxide equivalent, and has been certified with the Renewable Energy Certificate (REC) through EGAT for renewable energy production (from waste fuel and residual heat). The Company registered and opened a trading account for the acquired RECs with The International REC Standard (I-REC), amounting to 1,448,191.774 RECs (1 REC represents 1 MWh of electricity produced from renewable energy). This mechanism enables producers and consumers to authenticate their renewable energy generation and consumption, promoting renewable energy production through REC trade and offering renewable energy project investors the opportunity to earn additional revenues through the sale of these energy certificates.

In addition, in 2023, the Company allocated a budget to research and develop technology or carry out projects for the purpose of reducing risks or mitigating the impact of climate change, in the amount of Baht 15,476.44 million. In addition to reducing greenhouse gas emissions, the Company also places great importance on compliance with environmental laws, particularly in air pollution management. The Company has consistently utilized a system to monitor waste emissions, specifically from the combustion process in power plants, and to monitor the surrounding air quality of several areas near the factory. The Company monitors and controls levels of nitrogen dioxide (NO2) and sulfur dioxide (SO2) in each section of the combustion process, while also regulating temperature and fuel-to-air ratio during combustion to maintain waste emission levels within specified criteria.

Performance

Table: Greenhouse gas emissions of power plants (305-1, 305-2, 305-3)

	Unit	2021	2022	2023*
Scope 1 (direct)	TonCO_2e	3,201,398.15	2,477,534.70	1,718,996.00
Scope 2 (indirect)	TonCO_2e	410.09	588.79	12,366.00
Scope 3	TonCO_2e	139,897.22	120,150.62	127,488.00
Total	TonCO_2e	3,341,705.46	2,598,274.12	1,858,850.00

Note : Carbon footprint is verified by BSI Group (Thailand) Company Limited (“BSI”)as per ISO14064-1 : 2018 and CFO-TGO

Further information is available in TCFD Report on the Company’s website:

http://www.tpipolenepower.co.th/index.php/en/en-investment/tcfd-en

Table: The Company’s Sulfur Dioxide (SO_2) and Nitrogen Oxide (NO_2) emissions compared to World Bank emissions standards and regulations under Thai law (305-7)

(unit: milligrams/normal cubic meter)

	Sulfur Dioxide (SO_2)	Nitrogen Oxides (NO_2)
TPI Polene Power	30.0	120.0
World Bank emissions standards	< 230.0	< 510.0
Regulations under Thai law	< 320.0	< 350.0

Goals for Reducing Air Pollution Emissions per Production Unit

Short-term Goal (within 1-2 years)	Long-term Goal (Minimum 3 years)
• To reduce air pollution emissions per unit of electricity production to no more than 0.00165 Ton/MWh in 2022, 0.00130 Ton/MWh in 2023, and 0.00100 Ton/MWh in 2024.	• To reduce air pollution emissions per unit of electricity production to not exceeding 0.00085 Ton/MWh.

Table: GHG emission intensity of power plants[305-4]

Activity	Unit	2021	2022	2023
Greenhouse Gas GHG (1)*	$TonCO_2e$	3,341,705.46	2,598,274.12	1,858,850.00
Non greenhouse gases pollution (2)**	Ton	3,700	3,300	1,966
Power generating unit (3)	MWh	2,455,585.01	2,054,617.07	2,239,827.73
Proportion (1)/(3)	$TonCO_2e$/ MWh	1.5044	1.2646	0.8299
Proportion (2)/(3)	Ton/ MWh	0.001507	0.001606	0.000877

Note: * Calculated according to "Requirements for Calculating and Reporting Carbon Footprint of Organizations" by Thailand Greenhouse Gas Management Organization (TGO), 5th Edition, January 2021

** Non-greenhouse gases include SO_2 and NO_2.

From the table above, the Company managed to decrease its greenhouse gas emissions per megawatt-hour of electricity generated from 1.2646 TonCO2e in 2022 to 1.1756 TonCO2e in 2023, a reduction rate of 7.04 percent relative to the year 2022. Furthermore, the emission of non-greenhouse gas pollutants per unit of electricity production has been decreased from 0.001606 Ton per MWh in 2022 to 0.000891 Ton per MWh in 2023, reflecting a reduction of 44.52 percent compared to 2022.

2. Energy Consumption [3-3]

The Company operates an energy business centered on producing electric power and alternative fuels, with an implemented energy management system. Acknowledging the significance of energy conservation, the Company understands that using energy efficiently not only decreases fuel consumption and organizational expenses but also alleviates environmental issues stemming from energy production and usage. Every employee is tasked with promoting energy use for maximum benefit, emphasizing the importance of cooperative efforts in achieving efficient energy utilization.

Operational Goals

Short-term goal within 1-2 years	Long-term goal of at least 3 years
• Station Service Used must not exceed 12% of the total energy generated. • The total consumption of energy of all types per unit of electricity production is reduced to no more than 15.00 MJ/kWh in 2022, 14.50 MJ/kWh in 2023, and 14.00 MJ/kWh in 2024.	• The total consumption of energy of all types per unit of electricity production is reduced to not exceed 13.50 MJ/kWh by 2025.

Key Operations

TPI Polene Group established an energy management policy by applying the ISO 50001 standard as management guidelines at the operational level, using the focus improvement pillar of total productive maintenance, which is regarded as a pillar that focuses on reducing "loss" in a systematic way to find the point of energy loss-reduce costs, and apply it to improve by establishing a project team to achieve objectives and energy conservation goals by being able to efficiently manage energy in both lighting, lighting and air conditioning systems, including installation and maintenance of equipment to control the operation of the relevant electrical system, enabling continuous reduction of electrical energy consumption.

The Company established an energy conservation policy to be used as a guideline for energy operations and to promote efficient use of energy for maximum benefit as follows:

1. Implement and develop appropriate energy management systems by stipulating energy conservation as part of the Company's operations in accordance with relevant laws and regulations.

2. Implement measurement plan or data collection of energy consumption to be used in the preparation of a database to analyze the improvement of energy efficiency of the organization continuously and appropriate to the business, technology used and best practices.
3. Set energy consumption targets in each production segment and apply energy management systems to monitor, evaluate, and control energy consumption to meet the set targets.
4. Determine ongoing efficiency improvement projects, establish plans and targets, and review annual energy efficiency improvements.
5. Consider that energy conservation is the duty and responsibility of executives and employees at all levels to comply with the specified measures, and communicate to them to understand and comply with the measures in the same direction.
6. Support budget, human resources, equipment, machinery, products, and energy services to improve energy performance.
7. Conduct a Performance—Energy Efficiency Assessment whenever there is a design improvement or purchase with a significant impact on a process or machine.
8. Encourage employees to participate in presenting ideas for energy development, dissemination of information, training for employees, and organizing activities to promote energy conservation.
9. Support cooperation between external organizations, both public and private sectors in terms of energy management.

• Guidelines for Measuring Effectiveness Against Established Goals๑

The Company has established objectives and goals for energy management within the ISO 50001 management system to control operations in accordance with the established objectives and goals. The Company has appointed a working group responsible for overseeing operations related to ISO 9001, ISO 14001, ISO 45001, ISO 17025, and ISO 50001 management systems on a monthly basis. This group is tasked with evaluating the tendency of operational results according to the monthly plan, aiming to improve and address any issues that arise during operations in order to achieve the set goals.

• Lessons Learned from Energy Operations

The Company can efficiently manage energy by utilizing the Focus Improvement Pillar of Total Productive Maintenance to systematically reduce “losses”. This approach helps identify areas of energy loss and minimize costs. Establishing a Project Team to address these issues enables the achievement of energy conservation objectives and goals, facilitating a continuous reduction in electrical energy consumption.

• Engagement with Stakeholders in Energy Management

The Company has managed its operations according to the ISO 50001 system. Engagement with stakeholders is one of the significant requirements within the ISO 50001 system, emphasizing the understanding of stakeholders’ needs and expectations. Consequently, the Company has adopted a policy to utilize fuel derived from waste to replace coal, aiming to mitigate greenhouse gas emissions that contribute to the changing climate both locally and globally, thus ensuring that the Company’s operations do not negatively impact society

Performance (302-1, 302-3)

In 2023, the Company controlled and conserved Station Service Used, resulting in internal electrical energy consumption accounting for 8.351% of the total energy produced. This achievement aligns with the target of not exceeding 12% of the total energy produced. Additionally, all types of total energy values per unit of electricity production equal 13.74 MJ/kWh, which is consistent with the target of not exceeding 14.50 MJ/kWh.

Table: Total energy consumption of TPI Polene Power (only power plants and waste fuel production plant)([302-1])

(Unit : Gigajoules)

Station Service Used	Energy consumption		
	2021	2022	2023
Heat energy (non-renewable energy)			
Coal	12,583,468.75	7,641,672.37	10,308,969.03
Fuel oil	-	-	-
Diesel	18,400.37	33,892.65	34,151.80
Natural gas	466.67	6,271.72	-
Heat energy (renewable energy) Waste fuel	21,162,454.70	17,627,916.96	19,793,549.45
Total heat energy	33,764,790.49	25,309,753.69	30,136,670.28
Electrical energy	1,153,156.08	695,631.24	756,081.09
Total energy	**34,917,946.57**	**26,005,384.93**	**30,892,751.37**

Note :

- 1 kilowatt-hour of electrical energy is equal to 0.00360 Gigajoules. 1 kg of coal is equal to 0.01630 Gigajoules. 1 liter of fuel oil is equal to 0.03977 Gigajoules. 1 liter of fuel (diesel) is equal to 0.03642 Gigajoules. Natural gas (dry) 1 cubic foot is equal to 0.00102 Gigajoules. Data from the Department of Alternative Energy Development and Efficiency, Ministry of Energy
- 1 ton of steam heating power is calculated from the amount of heat that passes into or is discharged from the system of enthalpy at a steam pressure of 25 bar is 2.711073 GJ.

Table: Energy Concentration *([302-3])

Energy Concentration*	unit	2021	2022	2023
Specific Energy Consumption(SEC) per waste fuel used	megajoules/ton	40.82	39.62	38.47
Specific Energy Consumption(SEC) per power production	megajoules/kWh	14.21	12.62	13.74

Note : Energy intensity may be determined from the energy consumption ratio against the output scale of each plant considering the specific energy consumption per unit of production (SEC).

Initiatives to reduce energy consumption [(302-4)]

Initiatives to reduce energy consumption	Operation details	Reduced amount of energy
1. Change the feed set from Double Screw Feeder to Vibration Feeder for feeding waste fuel.	• Reduce energy consumption and for efficiency in feeding RDF fuel by changing the Feed set	4,074.45 GJ/year
2. Modify Suction Seal of Boiler fan 14	• Modify the Inlet Suction Seal to increase the flow rate and reduce the electrical power of the machine	874.69 GJ/year

3. Water Resource Management (3-3)

Water is a very important resource to the business operation of TPI Polene Power as it is one of the main raw materials used in the production process. The Company realizes and places importance to the use of water resources from natural and surface water sources, including wastewater from the production process for maximum efficiency in order not to affect the overall water management of the Pasak River Basin Irrigation Project and those who consume water from the Pasak River

Operational goals

Short-term goals within 1-2 years	Long-term goal of at least 3 years
• Wastewater from the electricity production process can be filtered and reused for a minimum of 30,000 cubic meters per month. • The average water use per unit of electricity production is reduced to no more than 4.5 liters/kWh in 2022, 4 liters/kWh in 2023, and 3.60 liters/kWh in 2024.	Recycle wastewater from the power generation process for reuse at least 50,000 cubic meters/month.

Key operations

TPI Polene Group has shown a clear intention to manage internal water to achieve the most cost-effective use of water within the community. The Company's water source will be procured by Plc. TPI Polene from two main sources of raw water, namely the Pasak River and water from surface water reservoirs, including wastewater within the plants. The details (303-1) are as follows:

1. Water from the Pa Sak River will be pumped up to the cement plant's water treatment plant, where a water supply system to be sent for use in production processes both cement plants and power plants.
2. Water from surface water reservoirs and wastewater within the plants consists of:
   2.1. A reservoir of 180,000 cubic meters for rainwater that falls on the plant area.
   2.2. A reservoir of 1,5000,000 cubic meters for rainwater that falls in the mine area and nearby areas.
   2.3. A reservoir of 1,000,000 cubic meters by TPI Polene Public Company Limited to be a reserve water source for the Company as well as to prevent impacts on the water consumption of people in nearby areas. Water from the surface water reservoirs will be pumped together with water from the Pa Sak River to improve its quality before being sent to cement plants and power plants and is also a reserve water storage reservoir for use in the dry season in cases where the amount of water from the Pa Sak River is insufficient for industrial consumption.

In addition, TPI Polene Group also uses groundwater for producing drinking water for sale and drinking within the plants. The approach that TPI Polene Group has followed is to reduce the use of water resources from natural rivers by building surface water reservoirs for use in cement plants and power plants to prevent impacts on the water consumption of people in nearby areas. Therefore, the Company undertakes the following actions:

- Water pumping from the Pa Sak River is controlled by the Saraburi Provincial Irrigation Project Office. The Office will issue a license for the Company to pump water not exceeding 1,000,000 cubic meters per month. The Company is required to prepare a monthly report summarizing the amount of water pumped from the Pa Sak River to the Saraburi Provincial Irrigation Project Office. In addition, the Office will arrange for staff to check the meters to check the volume of water pumped from the Company's Pa Sak River on a monthly basis. (303-1)
- Since the Pa Sak River is used by many sectors such as agriculture, industry, commerce, and households, water use must be controlled and allocated. The Saraburi Irrigation Project Office will control and allocate water use so that all sectors receive proper and fair water allocation. (303-1)
- The Company does not drain wastewater outside the plants but has wastewater collecting reservoirs for reuse within the plants. However, the Company arranges a monthly effluent quality analysis. (303-2)

In addition, TPI Polene Group complies with the 3Rs (Reduce, Reuse, Recycle) principle by increasing the efficiency of water use, including reducing water consumption in the production process and returning wastewater from the office through the treatment system and reusing it along with checking the clear reservoirs and the wastewater reservoirs, as well as the water obtained from wastewater treatment without draining it outside the plants (water treatment), such as watering plants and reusing.

- **Guidelines for Measuring Effectiveness Against Established Goals**

TPI Polene Power Public Company Limited has established objectives and goals for water management. To ensure that operations align with these objectives and goals within the ISO 14001 management system, the Company has formed a working group responsible for overseeing operations related to ISO 9001, ISO 14001, ISO 45001, ISO 17025, and ISO 50001 management systems on a monthly basis. This group evaluates operational trends monthly to facilitate improvements or address issues that arise during operations, aiming to achieve the established goals.

- **Lessons Learned from Water Operations**

TPI Polene Group has recognized the importance of internal water management to achieve the most cost-effective use of water within the community. The water source for the Company's use will be provided by TPI Polene Public Company Limited, which has raw water sources from two main sources, namely the Pa Sak River and water from surface water reservoirs, as well as wastewater within the factory. The Company has managed it by using raw water from both sources in the production process in a cost-effective manner. Looking at the amount of water from exeternal sources (tap water) produced by TPI Polene Public Company Limited in 2023, the amount has decreased compared to 2022.

- **Engagement with Stakeholders in Water Management**

The Company has managed according to the ISO 14001 system, engagement with stakeholders is one of the important requirements in the ISO 14001 system, which is understanding the needs and expectations of stakeholders. For this reason, the Company's business operations do not affect the community's water use. Therefore, the Company has built a pond to collect rainwater for use in the production process. During the summer, the natural water source has a low amount of water, up to 2,680,000 cubic meters, and the Company does not drain waste water outside the factory. The Company will have wastewater collection ponds to reuse wastewater within the factory.

Performance Results

In 2023, the company was able to recycle wastewater from the electricity generation process, amounting to 31,955.08 cubic meters per month, which met the set target of recycling not less than 30,000 cubic meters of wastewater per month from the electricity generation process. Additionally, the water usage rate per unit of electricity produced was 3.64 liters per kWh, a decrease from 4.41 liters per kWh in 2022.

Table: Amount of water drawn (only for power plants) (303-3)

(Unit : cubic meter)

Sources of water	Amount of water in the areas			Amount of water in the water stress areas		
	2021	2022	2023	2021	2022	2023
Surface water						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Ground water						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Sea water						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Process water						
Water with total dissolved solids ≤ 1,000 mg/L	355,304	396,322	383,461	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0

Sources of water	Amount of water in the areas			Amount of water in the water stress areas		
	2021	2022	2023	2021	2022	2023
Water from external sources (tap water) produced by TPI Polene Public Company						
Water with total dissolved solids ≤ 1,000 mg/L	9,002,342	9,068,317	8,162,450	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Total amount of water withdrawn						
Water with total dissolved solids ≤ 1,000 mg/L	9,357,646	9,464,639	8,545,911	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0

Note : No water from the water stress areas

Table: Amount of wastewater discharge (303-4)

(Unit : cubic meter)

Drainage of wastewater by the discharged water source	Amount of water in the areas			Amount of water in the water stress areas		
	2021	2022	2023	2021	2022	2023
Surface water						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Ground water						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Sea water						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Water sent to other organizations outside						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0
Total amount of wastewater discharged						
Water with total dissolved solids ≤ 1,000 mg/L	0	0	0	0	0	0
Water with total dissolved solids > 1,000 mg/L	0	0	0	0	0	0

Note : No water discharged to the water stress areas

Table : Substances rated for environmental impact requiring discharge water treatment (303-4)

Substances classified as having an environmental impact requiring discharge water treatment	Criteria under Notification of the Ministry of Industry *	Measured value		
		2021	2022	2023
pH	5.5 – 9.0	8.0	8.13	8.3
TDS	≤ 3000	899	560	587
SS	≤ 50	19.0	16.65	20.7
BOD	≤ 20	5.1	2.3	4.5
COD	≤ 120	50.3	29.2	24.6
Oil and Grease	≤ 5	ND	ND	ND

Note : The measurement value is referring to the standard according to the Notification of the Ministry of Industry on Factory Effluent Drainage Control Standards B.E. 2560

Table : Water consumption (limited to power plants) (303-5)

(Unit : cubic meter)

Water use at major operating sites	Amount of water in the area			Amount of water in water stress areas		
	2564	2565	2566	2564	2565	2566
Total water consumption	9,357,646	9,464,639	8,545,911	0.00	0.00	0
Total amount of water stored in the TPIPL areas	1,680,000	2,680,000	2,680,000	0.00	0.00	0
Total amount of water recycled	355,304	396,322	383,461	0.00	0.00	0

Note : No water from the water stress areas

Water Supply Consumption of Power Plant

Water Supply Consumption	Unit	2021	2022	2023
Average Water Usage Rate per Unit of Electricity Production	Litres/kWh	4.36	4.41	3.64
Actual water supply consumption	cubic meter	9,357,646	9,464,639	8,545,911
Water supply expense	million baht	271.37	274.47	240.34

Note : Water supply expense was collected from actual payment of water supply in each year.

4. Waste Management (3-3)

The Company's business plays an important role in efficiently disposing of various wastes in certain areas used to produce fuel. It is an innovative business that reuses waste to benefit, helps communities to reduce the amount of waste which is a national problem, and reduces the waste disposal process of other government agencies and private sectors which is indirect energy savings.

However, conversely, the Company's electricity production process also results in the generation of substantial amounts of industrial waste. If such industrial waste is not managed and disposed of properly, it can lead to environmental and community impacts, as well as affect the Company's business, including the possibility of having the Company's license revoked for non-compliance with legal waste management regulations. Therefore, the Company places significant emphasis on the efficient and lawful management of waste.

Operational Goals

Short-term goal within 1-2 years	Long-term goal of at least 3 years
• Use of industrial waste ≥ 95% of the amount of industrial waste generated each year	• Use of industrial waste ≥ 95% of the amount of industrial waste generated each year

Management Guidelines (306-1)(306-2)

The Company is committed to operating in accordance with the "Zero Waste" guidelines and complies with the policy by controlling, supervising, and developing several processes to ensure that the emission rate from the Company's operations is lower than the maximum emission threshold allowed by the Department of Industrial Works. The Company also periodically controls the quality of discharged waste for monitoring and mitigating environmental impacts to ensure compliance with standard requirements. Therefore, it can be said that the Company strictly complies with the emission and discharge requirements.

The Company systematically manages garbage and waste in business processes according to the 3R principle (Reduce, Reuse, Recycle) by managing waste generated from power plants and utilizing them for maximum benefit such as the use of all heavy ash and fly ash as a substitute raw material at the cement plants of TPI Polene Pcl.

Processes to collect and verify information related to waste:

1. Industrial waste management must comply with the Notification of the Ministry of Industry on Disposal of Sewage or Unusable Materials, B.E. 2548.
2. Use of industrial waste, such as alternative fuels, alternative materials, recycling, or disposal requires approval from the Department of Industrial Works and provides details of waste, disposal method, weight, and disposal agent.
3. Use of industrial waste, such as alternative fuels, alternative materials, recycling, or disposal requires shipping documents every time that is transported for use as legal evidence.
4. Prepare an account to collect information and control the weight of industrial waste utilized, such as alternative fuels, and alternative materials for recycling or disposal.

Performance

In 2023, the Company reported a reduction in the volume of hazardous waste by 90.27% and non-hazardous waste by 32.99%, in comparison to the fiscal year 2022. However The volume of waste disposal, both hazardous and non-hazardous, exceeded the initially set objectives for waste reduction.

This achievement involved the beneficial reuse of industrial residues, both hazardous and non-hazardous, originating from manufacturing processes, as alternative energy sources, materials, and for recycling purposes, amounting to a total of 13,190.44 tons, which represents 100% of the generated industrial waste.

Table : Amount of waste and waste management (only for power plants) (306-3, 306-4, 306-5)

(Unit : Ton)

Waste and waste management	2021	2022	2023
1. Total amount of waste classified by type of waste			
- Hazardous waste	79.63	24.26	2.36
- Non-hazardous waste	25,183.91	19,682.40	13,188.08
Total waste	25,263.54	19,706.66	13,190.44
2. Utilization*			
Hazardous waste			
-Alternative fuel	66.74	24.26	2.36
-Substitute material	0	0	0
-Recycle	12.89	0	0
Non-hazardous waste			
-Alternative fuel	10.75	99.81	150.01
-Substitute material	24,520.04	17,355.38	11,528.87
-Recycle	653.12	2,227.21	1,509.20
Total amount of waste for utilization	25,263.54	19,706.66	13,190.44
3. Disposal *			
Hazardous waste	0	0	0
Non-hazardous waste	0	0	0
Total amount of disposal waste	**0**	**0**	**0**

Note : * Exploitation and disposal occurs within the physical scope or control and management of the Company (Onsite).

Community and Social Development

Performance of Community and Social Development in 2023

Community and social contributions Baht **43.34** million

Disposed of **1,638** tons of COVID-19 infectious waste and 12,092.65 tons of non-hazardous industrial waste, utilizing them as refuse-derived fuel.

Zero Occupational illness and disease rates to be recorded in total **1** million hours worked

Zero Work-related deaths of employees and contractors

Injury frequency rates(IFR) of employees and contractors equal **1.31** and 0, respectively

Work satisfaction and employee engagement with organization = **83.20%**

Average training hours for employees **33.88** hours/person/year

1,700,016 accident-free work hours (2.05% increase compared to 2022)

Employee Turnover (Turnover rate) = **2.42%**

Community and Social Development Management Policy

The company prioritizes community and social development, thus establishing policies and practices in alignment with laws, regulations, and guidelines that comply with social and community management. This commitment extends to the respect for human rights and fair treatment of all stakeholders throughout the company's value chain including employees, partners, clients, and the community, integrating responsibility towards all stakeholders across the business value chain.

The Company has implemented a policy to establish a socially responsible organization, emphasizing on balancing stakeholder involvement by nurturing an adaptable and learning-oriented workforce. This initiative ensures the organization can effectively respond to its own requirements as well as those of society. In addition, it is imperative to prioritize the health and safety of employees, along with environmental stewardship to ensure business operations are conducive to environmental sustainability. This strategy underlines the concept of creating a socially responsible organization that offers sustainable benefits to both the organization and the community.

In 2023, the Company identified two key sustainability concerns in the social dimension as follows:

1. Occupational Health and Safety
2. Community and Social development

Code of Conduct

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/code-of-conduct-th

International Human Rights Policy

http://www.tpipolenepower.co.th/index.php/th/th-investment/social-responsibility-th

Employee Handbook

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/empprinciple

Data Protection Policy

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/pdpa

Social Responsibility

http://www.tpipolenepower.co.th/index.php/th/th-investment/social-responsibility-th

Anti-Fraud and Corruption Policy

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/pdpa-2

1. Occupational Health and Safety (3-3)

A good occupational health and safety management system is a fundamental responsibility related to operations in the Company's area and all related work areas. The Company is committed and adheres to and strictly complies with the requirements for safety and occupational health in the workplace, including assessing risks from work in all business processes, as well as instilling and building awareness of safety in the work of employees and those involved to create a culture of safety in the workplace in order to prevent and reduce the loss that may occur to life, property, including the impact that may occur on surrounding communities and the environment. The Company aims to be an organization with zero accidents.

Operational Goals

Occupational Health and Safety
• The number of fatal injuries from work is zero. • The rate of high-impact work-related injuries is zero. • The rate of morbidity from occupational diseases is zero.

Management guidelines (403-1)

The Company has set a policy and guidelines related to occupational health, safety, and good working environment, covering employees, operators, contractors, and subcontractors, including communities and stakeholders with the Company's operational activities so that everyone will have a good and safe quality of life, no accidents causing serious injury to death or illness morbidity work, with operations under the policy on occupational health, safety, and environment, including requirements for operating guidelines that comply with the ISO45001 occupational health and safety management system with the following guidelines:

Assess risks and risk management guidelines for occupational health, safety, and working environment covering all work processes that may affect communities, society, and the environment, including meetings to discuss, supervise and monitor the operations regularly.

Prepare a safety manual for operations and supervise the operation in accordance with the manual and operating procedures to ensure safety.

Report and investigate accidents, and incidents including the determination of solutions and being careful to prevent repeated accidents.

Supervise operations according to the laws on safety, occupational health, and working environment and other related regulations as well as supervising operators, third parties, and those involved in the work area to strictly comply with the rules and regulations.

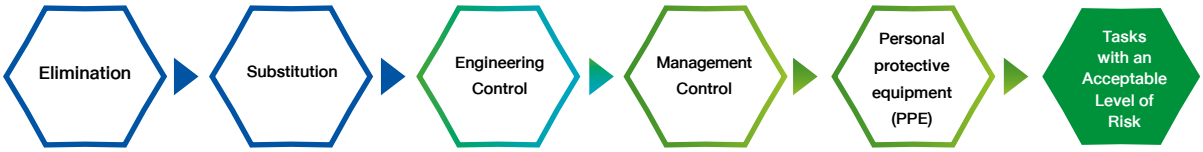
Supervise the working environment and provide personal protective equipment for employees who use it in performing duties in accordance with the laws.

Be prepared to respond to emergencies, including business continuity management.

Communicate policies, instill consciousness, create a work culture, develop skills and knowledge, and organize activities to promote safety, occupational health, and a good working environment.

Guidelines for Risk Assessment Incidence Investigation and Risk Management In Occupational Safety, Health, and Working Environment (403-2)

The Company has established a safety risk assessment process, occupational health, and working environment in accordance with the ISO45001 occupational health and safety management system by allowing workers who own the risk to analyze their own job characteristics and other related parties such as third parties and contractors to identify hazards, assess opportunities and impacts that may occur from operations as well as risk prioritization, supervision and follow up on operations to be in line with plans and goals.



Working Environment Control

- Employees and related parties wear personal protective equipment to prevent injuries and accidents at work.
- Put signs and symbols indicating hazards in the work areas.
- Regularly measure and assess the working environment with measurement values in accordance with the law, such as air quality, noise level, and light intensity.

Supervision

- Define rules and regulations for operations covering the operation of employees, third parties, and stakeholders working in the areas.
- Safety officers, area owners and all employees are responsible for supervising the implementation of the prescribed safety measures and guidelines, such as:

- Training on safety and related regulations to all contractors before entering the work areas.
- Application for permission to enter the operational area must be approved according to factory procedures.
- Contractors must have a supervisor with safety knowledge who can assess the dangers that may arise from work, are responsible for controlling and supervising both general work and work that requires specific skills.
- Risky work requires a work permit and strictly complies with the requirements for each work permit.

Reporting and Investigation

- Accidents or abnormal incidents must be reported and recorded systematically, both in the production process and near-miss incidents.
- Employees who witnesses must report the incident to their supervisors and safety officers within 24 hours.
- Appoint a working group to investigate accidents or incidents and to investigate root causes using the principles of Why-Why-Analysis to lead to the determination of corrective measures, prevention, and monitoring of corrective actions.
- Update according to the specified preventive measures from time to time.
- Develop learning materials from accidents for employees and contractors through the Company's media to ensure the most efficient and effective prevention.

Safety, Occupational Health and Environment Management (403-4)

The Company has appointed a Safety, Occupational Health and Environment Committee, consisting of executives and safety officers at the professional level of the Company responsible for managing safety, occupational health and working environment to meet the requirements of ISO45001 occupational health and safety management standards system and related safety laws.

The Department of Occupational Health and Environment has been established to coordinate and monitor the operations of safety and the environment of all plants in compliance with relevant laws and regulations, policies, plans, and goals set by the Company, including risk assessment and management Preparation of impact assessment reports on safety, occupational health, and environment, as well as performance reports to the Occupational Health, Safety and Environment Committee for acknowledgment on a regular basis.

As well as the appointment of the Safety, Occupational Health and Environment Committee in each plant, which is in accordance with the Ministerial Regulation on Occupational Safety, Health and Working Environment Management B.E. 2549, consisting of representatives from employees at the operational level not less than 50% of the entire committee, whereby the representatives of the employees at the operational level are elected separately according to their line of work so that there are representatives of employees from all lines of work, which is scheduled to hold a meeting at least once a month, responsible for receiving information from employees in each line through representatives and notifying news, along with following up on the progress of operations and plans for future operations, including development, improvement, promotion, and creation of knowledge, in order to instill a culture and develop skills and knowledge in occupational health and safety for employees, contractors, and those who come to work in the plant areas such as training to develop knowledge of safety and working environment, organizing weekly activities on safety and environment, training on safety at work, basic firefighting and evacuation drills, training in first aid and basic life support, CPR & AED, participating in safety networks in campaigning and organizing safety activities.

Occupational health and safety services and promoting employee health (403-3, 403-6)

The Company provides services that promote a safety culture within the organization that covers service and promotes good health in the workplace such as:

- Infirmary within the workplace where there are doctors and nurses on duty to give advice on illnesses and first aid in case of injuries to employees and contractors.

- Employee health check-ups since starting work according to the risk factors such as a hearing test and pulmonary function tests Electrocardiogram (EKG) in case of working in a confined space.
- Annual health check-ups, both general health check-ups and health check-ups according to occupational health risk factors, with the Company's occupational medicine physicians and occupational health professionals to jointly determine the health checklist of workers from factors inside and outside the workplace. If an employee has an abnormal health check-up, he/she must visit a doctor and receive continuous health care advice. There are additional checklists according to the risk of age groups, such as lipid tests (Total Cholesterol, LDL, HDL, Triglycerides) in the employee health check-up program to cover diseases that may be caused by daily life and for employees to continuously monitor their health.
- Determine medical expenses welfare (OPD) for employees, parents, spouses, and legal children.
- Determine additional welfare to support workers in accessing medical services for non-work related cases such as basic medical examination and treatment, and emergency treatment at the Company's infirmary for employees and contractors, including annual health check-ups, influenza and COVID vaccinations for employees.

Occupational Health and Safety Employee Training (403-5)

The Company established criteria for determining training courses in occupational health, safety, fire prevention, and suppression that is necessary for employees and contractors that are suitable for job positions, types of work or risky activities to develop knowledge, competence, and understanding of what may be dangerous and cause accidents, how to prevent, and control hazards while working, to be able to perform assigned duties safely by requiring assessments and storing training records.

Training Course Topics	Number of trainees (persons)		
	Contractor	Employee	Total
Safety, occupational health and working environment for general employees and new employees	53	11	64
Occupational and environmental diseases	0	11	11
Primary fire fighting	0	11	11
Review of working in confined spaces	0	221	221
Training or review of crane work	0	80	80
Radiation safety	0	10	10
Risk issues and safe working techniques	53	11	64
Environmental issues	53	11	64

Project Benefits

Employees and contractors who come to work at the Company are required to understand the contents of the safety curriculum related to their own work conditions, especially the risks associated with their works, and be able to deal with those risks and cope with emergency situations that may occur. This is aimed at reducing the severity of impacts on people, property, production, and the environment. Consequently, each function is prepared to efficiently handle emergencies, ensuring continuous business operations. This resulted in an improvement in the Company's safety performance in 2023 compared to 2022, with an Injury Frequency Rate (IFR) of 1.31 per million hours of operation, a decrease of 0.46 from 2022. In 2023, there were 1,700,016 hours of work without lost-time accidents, an increase of 34,071 hours compared to 2022. Additionally, the total records of sickness and occupational diseases among employees and contractors were Zero. Moreover, organizing training for such contractors is also considered an activity to develop sustainable business operations with suppliers.

Emergency Response Preparedness (403-7)

The Company established an emergency response plan whereby every plant is required to prepare an emergency response plan which clearly defines roles, responsibilities, and operational procedures, as well as requiring rehearsals, annual emergency responses such as fire, chemical leakage, and boiler explosion. In this regard, there must be an assessment and rehearsal of such an emergency plan in order to apply suggestions to improve the efficiency of emergency response operations. The Company also provides training to add expertise to employees who are responsible for responding to emergencies, such as advanced firefighting training, chemical leakage prevention, and emergency management training.

Performance

The Company set criteria for measuring and evaluating work in occupational safety, health and working environment by considering the rate of accidents from work, the number of safe working hours, the rate of fatal work-related accidents and the number of occupational morbidity or disease, with 2023 performance as follows:

Table : Information of Employees and Workers under the Company's Occupational Health and Safety Management System (403-8)

	Number (persons)	Percent
Employees and workers of establishments controlled or supervised by the organization		
Employees	993	100
Workers	84	100
Employees and workers of establishments controlled or supervised by the organization (and monitored by the organization).		
Employees	353	35.55
Workers	35	41.67
Employees and workers of establishments controlled or supervised by the organization (and monitored by the outside organization).		
Employees	103	10.38
Workers	23	27.38

Note : Employee means personnel of the Company.
Worker means personnel of other establishments controlled or supervised by the Company under ISO 45001 standard.

Table : Work-related Injuries and Health Problems (403-9, 403-10)

Performance	2021	2022	2023
Death rate	0	0	0
Rate of high-impact work-related injuries	0	0	0
Employee Injury Frequency Rate (IFR) (Number of times per 1 million working hours)	1.79	1.77	1.31
Contractor Injury Frequency Rate (IFR) (Number of times per 1 million working hours)	0	0	0
Employee Lost Time Injury Frequency Rate (LTIFR) (Number of times per 1 million working hours)	1.79	1.77	1.31
Contractor Lost Time Injury Frequency Rate (LTIFR) (Number of times per 1 million working hours)	0	0	0
Occupational morbidity rate	0	0	0
Working hours without lost time accidents	1,624,536	1,665,945	1,700,016
Number of Level 3 emergencies (fires, chemical spills, explosions, and building collapses)	0	0	0

Work-related injuries (403-9)

Fatality and injury statistics of employees and non-employees, but works and/or establishments are controlled by the organization.	Types of Injuries (/)										Number of working hours	Number (people)	Death/injury rate (calculated based on 1,000,000 working hours)
	Back and spine injuries	Bone fractures	Burns	Ear injuries (including tinnitus)	Facial injuries (eye, nose, and jaw)	Loss of digits and limbs	Repetitive stress injuries	Sprains, strains, and tears (soft tissue injuries)	Toxic exposure	Traumatic brain injuries (TBI))			
Employee deaths and injuries													
Death from Work-Related Injuries	0	0	0	0	0	0	0	0	0	0		0	0
High Impact Work-Related Injuries (not including death)	0	0	0	0	0	0	0	0	0	0	2,287,872	0	0
Recordable work-related injuries	0	0	0	0	1	0	0	2	0	0		3	1.31
Deaths and injuries of non-employees but works and/or their establishments are regulated by the organization.													
Death from Work-Related Injuries	0	0	0	0	0	0	0	0	0	0	193,536	0	0
High Impact Work-Related Injuries (not including death)	0	0	0	0	0	0	0	0	0	0		0	0
Recordable work-related injuries	0	0	0	0	0	0	0	0	0	0		0	0

Note : High-impact work-related injury means an occupational injury that results in death or injury resulting from a worker's inability to or unable to work or unable to expect fully recover to the pre-injury state within 6 months

Recordable work-related health problems refer to an occupational injury, resulting in any of the following: death, absence from work, work restriction or transfer, medical treatment other than first aid, loss of consciousness, serious injury diagnosed by a physician or a licensed medical practitioner.

Work-related health problems (403-10)

	Types of health problems (number)			Number (people)	Rate of death (percentage)
	Stress, depression or anxiety	Musculoskeletal disorders	Occupational lung disease		
Deaths and work-related health problems of employees					
Death from work-related health problems	0	0	0	0	0
Recordable work-related health problems	0	0	0	0	0
Deaths and work-related health problems of non-employees, but works and/or their establishments are regulated by the organization.					
Death from work-related health problems	0	0	0	0	0
Recordable work-related health problems	0	0	0	0	0

Note : Recordable work-related health problems refer to poor health, resulting in any of the following: death, absence from work, work restriction or transfer, medical treatment other than first aid, loss of consciousness, serious injury diagnosed by a physician or a licensed medical practitioner.

Based on the above information, the Company has improved performance in occupational health and safety, with no fatalities, high-impact work-related injuries, or illnesses due to occupational diseases. The Injury Frequency Rate (IFR) per million working hours in 2023 was 1.31, a decrease of 0.46 compared to 2022, and there were 1,700,016 working hours without lost-time accidents, an increase of 34,071 hours compared to 2022.

Guidelines for Measuring Effectiveness Against Established Goals

The Company has established objectives and goals for safety management in order to control operations according to the established objectives and goals. The Company has appointed an ISO45001 management system working group to monitor performance on a monthly basis and evaluate the tendency of operating results according to the plan each month, aiming to improve or resolve problems that occur during operations to achieve the set goals.

Lessons Learned from Occupational Health and Safety Operations

The Company has improved and developed occupational health and safety operations to align with changes in the current occupational health and safety standard system, including the application of technology in operations, to reduce the chance of loss and prevent risk factors that may cause occupational diseases.

Engagement with Stakeholders in Occupational Health and Safety Management

The Company has managed according to the ISO 45001 system. Engagement with stakeholders is one of the vital requirements in the ISO 45001 system; therefore, preventive measures have been put in place for both machinery and the working environment. Additionally, the Company has heightened awareness of dangers and occupational health and safety measures, and involves stakeholders in providing suggestions for setting up an occupational health and safety committee, holding an annual management system review meeting, and convening an annual general meeting of shareholders in order to improve and develop safety management to keep up with the times and legal requirements for the safety of stakeholders.

2. Community and Social Development (3-3)

Commitment to community and social development, enhancing the quality of life, including preserving the environment so that the industry can coexist with society and communities in mutual assistance is the goal that the Company, as a Thai power producer, places great importance on environmentally friendly power generation along with efficient waste disposal which is regarded as directly solving social problems as well as helping to support the careers of people in the community which leads to sustainable development for both the Company and Thai society.

Operational Goals

Participation in Community and Social Development
• No complaints or demands for remedies or compensation

Management guidelines

Throughout the past operations, the Company has always taken into account the impact that may occur on society and communities, covering all sources of operations of the Company (100%) (413-1) due to the investment in each project of the Company is a large-scale project which may have risks at any stage with the potential to create both social and environmental impacts. The Company places importance on the impact assessment process based on the ability to respond to the needs or expectations of affected communities.

Methods or processes for evaluating the impacts on communities due to the organization's operations (413-2)

The Company has operated in accordance with relevant regulations by providing information and details of numerous projects that have been carried out transparently in order to obtain opinions and suggestions of the communities to be taken into account before and after the operation of the projects, as well as establishing a committee representing the sectors of the communities to participate in the operation of the Company in monitoring and proposing complaints or suggestions in order to communicate and resolve arising problems.

In addition, the Company has set up funds for the community which are additional voluntary funds that are not stipulated in the law, managed by community representatives.

The Company has also organized open house activities for community representatives, educational institutes, government agencies, or related private sectors to visit the management process and factories in order to give an opportunity to see the actual conditions and have the opportunity to communicate directly.

Learn more details at "Organization of CSR activities for communities in the area where the plants are located to listen to problems and solve the impacts on a regular basis" according to the diagram shown.

Establishment of a power plant fund to promote and support social responsibility activities

The Company has provided financial support by establishing funds with the objective of promoting the care of communities in the areas surrounding the Company's power plant operations for educational institutions, research institutes, academics, and community representatives, and the Company has participated in the implementation of the projects for the following purposes:

1. Health insurance fund for communities surrounding the power plant

For the benefit of being collateral for the treatment of illnesses of people in a radius of 5 kilometers around the projects in the event that the illness is caused by the operation of the projects, 1,000,000 baht will be deposited into the fund account in the first year and 500,000 baht in subsequent years every year. From the year 2019 to the end of 2023, the fund has accumulated a total amount of 3,020,173.04 baht.

2. Fund for research projects for community career development and resource conservation and restoration of nature and environment

To support community affairs and to create understanding among the communities, to support budgets for research and development projects related to the conservation and restoration of natural resources and the environment, to promote the development of livelihood capabilities, and to develop occupation of the project communities. 1,000,000 baht will be deposited into the fund account in the first year and 200,000 baht in subsequent years every year. From the year 2019 to the end of 2023, the fund has accumulated a total amount of 1,866,800 baht.

3. Quality of medical equipment and personnel and public health research support budget

To support public health activities in the areas to promote and monitor health at the sub-district, district, and provincial levels, such as supporting the training of village health volunteers, supporting research budgets, monitoring health impacts, purchasing medical equipment, and supporting public health personnel, etc., with a fund of 300,000 baht each year. From the year 2019 to the end of 2023, the fund has accumulated a total amount of 7,970,443.80 baht.

4. Occupational health and safety support budget

To support the increase of the hospital's potential, promote sub-district health and public health personnel, maintain the health of people in the areas by supporting medical supplies and equipment, annual training and practice from personnel in occupational health or hygiene or occupational science, with a fund of 300,000 baht each year. From the year 2019 to the end of 2023, the fund has accumulated a total amount of 356,273 baht.

5. Biological resources support budget

A budget of at least 300,000 baht per year to support forest rehabilitation activities for communities and related agencies for reforestation. From the year 2019 to the end of 2023, the fund has accumulated a total amount of 786,000 baht.

Performance

In 2023, the Company has no complaints from communities and society.

Social Activities (413-2)

The corporate social responsibility operations are divided into two main areas: Community Relations and Corporate CSR. In 2023, the Company and TPI Polene Group supported the budget for construction materials and healthcare products in TPI Polene Group, amounting to Baht 43,343,196.86 for the surrounding communities and society. The work was carried out concurrently, and can be summarized as follows:

The corporate social responsibility operations are divided into two main areas: Community Relations and Corporate CSR. In 2023, the Company and TPI Polene Group supported the budget for construction materials and healthcare products in TPI Polene Group, amounting to Baht 43,343,196.86 for the surrounding communities and society. The work was carried out concurrently, and can be summarized as follows:

(4.1) Community Relations

The Company has solid waste fuel production plants located in various communities. The Company has a proactive policy for every production unit to support hygiene and reduce the impact of epidemics, without waiting for the community to request assistance. The Company provides important supports to surrounding communities and society as follows:

(1) Strengthening communities to promote health, providing mobile medical unit services under the 'Annual Healthcare Project', offering public health examinations, chest X-ray examinations, complete blood counts, and eye examinations to people of Kaeng Khoi District, Muak Lek District, Saraburi Province.

(2) Promoting and enhancing the quality of life for Thai people, the Company has partnered with the 2nd National Blood Service Sector (Lopburi Province) and the Red Cross Society of Saraburi Province to organize blood donation activities. TPI Polene Group's executives, employees, and contractors joined in donating more than 83,700 cc of blood to assist patients in Saraburi and nearby provinces.

(3) Project to Separate Soldi Waste in Exchange for Electricity for Community Development aims to provide knowledge on household solid waste separation, reducing solid waste volume within the community. This includes educating individuals on designing and creating products from recycled solid waste. By transforming solid waste into usable products, the community can generate income through product sales and by selling household solid waste to the Company for electricity generation. This initiative not only reduces environmental impact but also improves overall health and hygiene. Community members will convene to drive ongoing activities and create supplementary income opportunities for residents.

(4) Supporting water filters and maintenance for basic community healthcare, ensuring access to clean drinking water for the people and promoting the local economy. This initiative targets 14 villages in the Kaeng Khoi and Muak Lek Districts of Saraburi Province, surrounding the factory.

(5) Participating in organizing TPIPP reforestation activities aimed at reducing heat and contributing to global conservation efforts at the mine Site C1, located in Thap Kwang Sub-district, Saraburi Province. This initiative involves reforesting an area of 100 rai in collaboration with the Mayor, Chief Executive of the SAO, and members of the SAO Municipality, as well as village leader, village headman, teachers, and villagers from Thap Kwang Sub-district and Tha Klo Sub-district in Kaeng Khoi District, and Mitraphap Sub-district and Muak Lek Sub-district in Muak Lek District. This activity aims to increase greenery space, replace degraded forests, reduce global warming, and preserve nature and the environment. Additionally, the Board of Directors, executives, and employees of TPI Polene Public Company Limited, TPI Polene Power Public Company Limited, and affiliated companies, together with the Environment for Better Life Foundation, are organizing a project to plant trees and increase greenery space by 2,000 plants in 2023 at the TPI Polene's Cement Factory in Saraburi Province.

(4.2) Corporate CSR

Additionally, the Company also participates in improving the quality of life and promoting community involvement.

In 2023, it engaged in various activities with the community, including the following significant activities:

Society and Community Assistance Activities

Community involvement and development

- Supporting the budget to promote and develop a good quality of life for Thai people, such as:

TPI Polene Public Company Limited, TPI Polene Power Public Company Limited, executives, employees, and relatives jointly donated Baht 21,285,062 to the Mahidol Day Fund in 2023 to assist underprivileged patients at Siriraj Hospital, Faculty of Medicine, Mahidol University.

TPI Polene Public Company Limited, TPI Polene Power Public Company Limited, and the Environment for Better Life Foundation donated 300 sweaters through the Embassy of Turkey in Bangkok, which will be distributed to aid victims affected by the earthquake in Turkey.

The Company donated 37 beds for bedridden patients to the Division of Public Health and Environment of Thap Kwang Municipality. These beds will be given to bedridden patients who are confined to their homes in Thap Kwang Sub-district, Muak Lek Sub-district, and Mittraphap Sub-district, Saraburi Province.

The Company supports the “Prosthetics Project” for poor disabled people who are unable to help themselves and for young children who are of school age. This support is extended to the Association of Persons with Physical Disability, Uthai Thani Province, with a contribution of Baht 240,000. Additionally, the Company extends support and supervision for teaching activities aimed at disabled children of the Special Education Center, Educational Zone 8, Chiang Mai Province, with a contribution of Baht 20,000.

The Company supports the 23rd PSU Hat Yai Nature Run 2023 of Prince of Songkla University for Baht 300,000.

The Company supports the event “106th Anniversary Homecoming, Listening to Fun Songs, Walking at Chula” on the occasion of the 106th anniversary of the founding of Chulalongkorn University, organized by the Chulalongkorn University Alumni Association, amounting to Baht 400,000.

The Company improved the meeting room of Ban Nong Talum Puk School, Nakhon Ratchasima Province, for the amount of Baht 50,000.

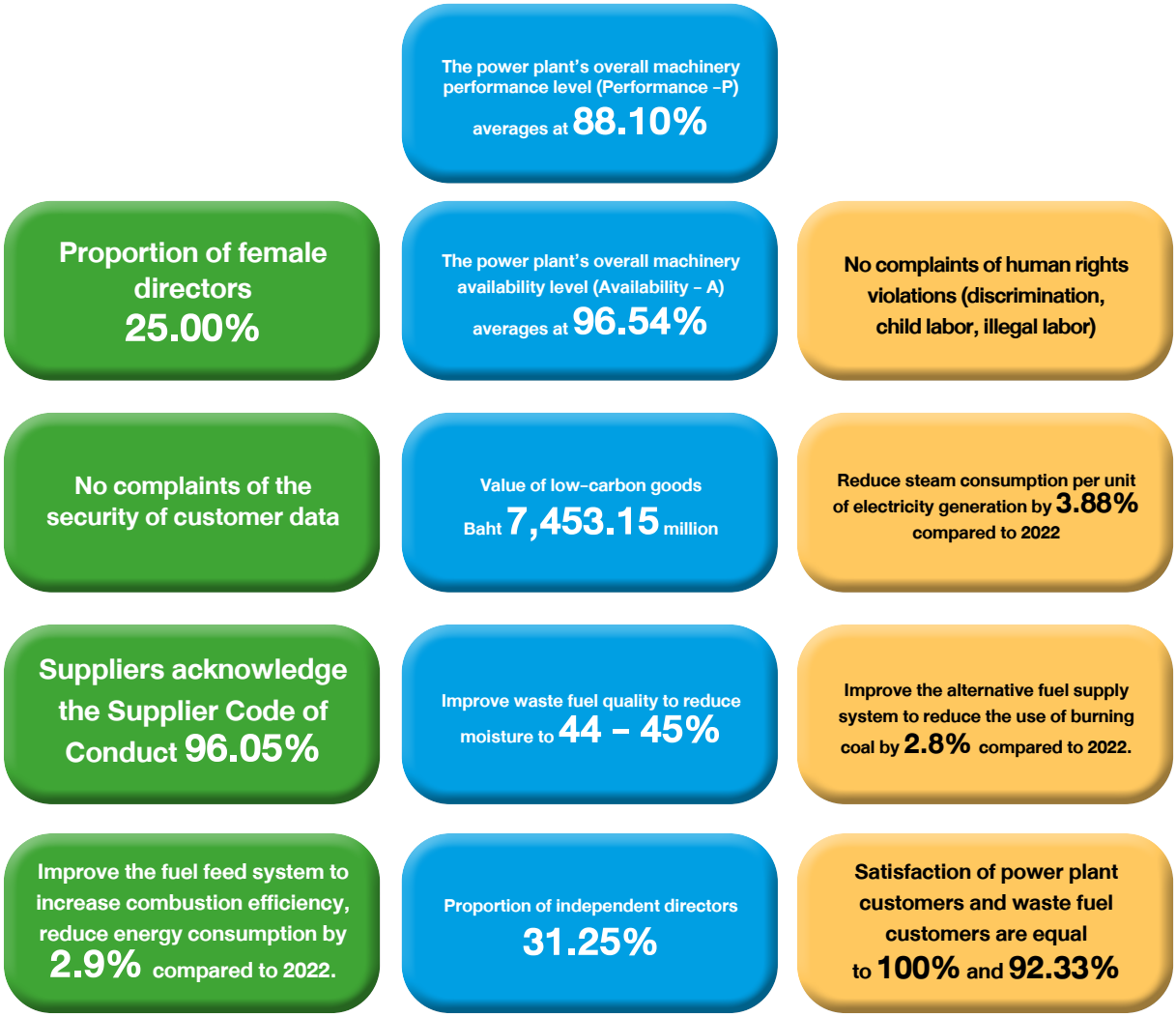
- Co-hosting the Kathin Samakkhi Ceremony at Sri Don Mun Temple in Chiang Mai Province, Ban Hin Lap Temple in Saraburi Province, Tham Sarika Temple in Nakhon Nayok Province, and the Pha Pa Samakkhi ceremony at Nong Talum Puk Temple in Nakhon Ratchasima Province, as well as the Kathin Samakkhi at Khao Sukim Temple in Chanthaburi Province. The Company also supported the budget for purchasing TPI construction material products, fiber cement products, Nano Super Armor TPI paint, and other products for various temples. This support includes participating in the construction of temples and Phrapariyattidhamma Schools, such as Komes Rattanaram Temple in Pathum Thani Province, building toilets for Wat Pa Khantiyanusorn in Udon Thani Province, establishing a meditation practice area and a fire ceremony area in front of the new chapel at Kaew Fa Temple in Nonthaburi Province, expanding roads, constructing a central kitchen and toilets within Wat Pa Luang Pho Wiriyang in Nakhon Ratchasima Province, and more.

In addition, the Company also participates in promoting and maintaining Buddhism in various areas, which includes supporting projects such as the Novice - Primary Root of Religious Successor Project at Rama IX Kanchanaphisek Temple, contributing to the dissemination of Dhamma through the Dharma Inspiration Channel at Weruwan Temple in Kanchanaburi Province, and supporting the spread of Buddhism on the World Buddhist Television Station of Thailand at Wat Yannawa (WBTV), among others.

The aforementioned activities represent a part of the company’s commitment to improve the living standards of people and society. The company recognizes its responsibility in corporate social responsibility by endorsing initiatives related to society, education, youth, religion, and the environment to foster a supportive community, a healthier environment, and a sustainably developing Thai economy.

Corporate Governance

Corporate Governance Performance in 2023



Economic and Corporate Governance Management Policy

The Company's business operations are committed to sustainable development, focusing on efficient electricity production, ensuring the availability and reliability of the system, and continuously researching and developing technology and innovation. The Company adheres to the principles of corporate governance under the good corporate governance, which comprehensively takes into account all stakeholders' human rights, enabling the Company to grow alongside sustainable development.

The Company's sustainability issues with high materiality in terms of the economy and corporate governance in 2023 are as follows:

1. Economic Performance & Indirect Economic Impacts
2. Research and Development
3. Technology, Innovation and Service
4. Electrical System Efficiency and the Availability and Reliability of the Electrical System
5. Anti-corruption
6. Procurement Practices
7. Risk and Crisis Management
8. Data Security and Customer Privacy

Economic Performance [3-3] and Indirect Economic Impacts

Creating economic value through an environmentally friendly power generation business model is the key to creating shared values between the Company and society to grow together sustainably and efficiently. In 2023, the Company formulated important business strategies such as strategies to increase revenue, improve electricity production efficiency to increase the maximum capacity utilization rate, increase the amount of electricity sold, and reduce production costs, and growth by expanding investment to generate good performance of the Company which leads to the distribution of income and benefits to all groups of stakeholders of the Company.

Management Guidelines

- **Management of power purchase agreements** for power plants with current power purchase agreements as there are three current power purchase agreements with the Electricity Generating Authority of Thailand and it is sold to the cement plants with different prices in each agreement. For example, a selling electricity price per unit for the 90 MW project has an adder included in the base electricity cost. Therefore, it plans to manage to sell electricity to the full agreement in this part. The second part is the electricity sales agreement with the cement plants, which has the second highest electricity rate, but the cost of coal-fired power generation is higher than that of waste-fired power plants and the 18 and 55 MW power sale contracts where the adder has already expired since the electricity tariff is based on the TOU electricity scheme, the price of electricity during the peak time will be higher than the off-peak period. Therefore, it is necessary to plan the operation of the power plants in order to maximize revenue in case of limited production due to boiler maintenance shutdown and plan to reduce electricity distribution during off-peak periods in case of being affected by coal fuel cost price for profit optimum with the Company.
- **Increasing the amount of electricity production and distribution** as the adder in the electricity agreements with PEA in 2022 starts to expire and the cost of coal prices has increased very high. The plans for major maintenance have resulted in a decrease in power generation and electricity sales. In 2023, the electricity rate has increased due to the increase in the variable FT electricity. Therefore, production planning in 2023 is to operate the power plants with more production capacity to generate more profit than in 2022.
- **Reducing production costs,** which means fuel costs, fuel efficiency in power generation, and maintenance costs, has organized a plan of action in order for business operations to establish a clear goal of reducing total production costs by at least 10% by:

  - Reducing fuel plants will be carried out to increase the proportion of municipal waste and low-quality sorting waste, which will reduce the overall raw material purchase cost.

  - Using a higher proportion of low-quality waste fuels in order to reduce the cost of steam production per unit. The Company has implemented grate incinerators and boilers that support unsorted waste and low-quality waste, making it a management guideline to reduce fuel costs and power generation costs.

  - Applying the combustion control system, if implemented, can increase the efficiency of power generation, expected to reduce the cost of power generation in AI-powered generating units by approximately 5%.

  - Using waste to replace the use of coal has implemented a project for coal-fired boilers that can replace boiler 6 by completely eliminating coal-using waste, which has been completed in early 2023.

  - Reducing coal consumption with alternative fuels from waste, wood, and other renewable fuels in boilers 8, which can reduce coal consumption by 10-15%.

  - Maintenance costs by planning major maintenance shutdowns continuously from 2022, causing investment in major renovations of the boilers and allowing for reduced long-term maintenance costs for power plants and increased efficiency in power generation.

Investment project to increase the volume of green electricity sales, totaling Baht 15,476.44 million

The Company has engaged in investment operations for the purpose of expanding production capacity and electricity sales contracts, detailed as follows:

1. The Project to transition the fuel source of B6 Boiler for steam production for the power plant.

The project aimed to modify the power plant's boiler system to rely entirely on waste-derived fuel, reflecting a commitment to reducing fossil fuel dependency and greenhouse gas emissions. The construction was completed in 2023, and the company has shifted operations towards generating steam from Boiler B6 with a complete transition to waste fuel, including the total phase-out of coal. Additionally, the project has contributed to enhanced municipal waste management capabilities and reduced electricity generation costs.

2. Boiler Fuel Replacement Project for Power Plant, TG 8, with a capacity of 150 megawatts

On 27 April 2022, TPI Polene Power signed a contract to procure machinery and equipment, including construction and installation for three sets of RDF Boilers 160TPH, as part of the development plan for the power plant, TG 8. The objective is to transition from coal to waste fuel by 2022, with additional boilers currently being installed. The project has reached 25% completion and is slated for full operation using waste fuel by 2025. This transition will enable TPI Polene Power to generate a total of 440 megawatts of electricity, converting all plants to renewable energy power plants.

3. The project of constructing a waste incinerator and Boiler B16.

The project involves the installation of a Grate Incinerator, aimed to to manage the remaining waste from the separation process in fuel production, derived from waste materials. This process involves burning the remaining waste using a grate system incinerator, capable of disposing of up to 800 tons per day. The heat generated from the incineration is used to produce steam at a rate of 80 tons per hour, capable of generating 15 megawatts of electricity. The project's progress currently stands at approximately 20% and is expected to be completed by the end of 2024.

4. Solar Farm Project (Zone 1 - 2)

The construction site, located in Kaeng Khoi District, Saraburi Province, features installed power on the ground for Phase 1, amounting to 61.226 megawatt peak or 52.20 megawatt AC, and Phase 2, amounting to 11.99 megawatt peak or 9.6 megawatt AC. The primary objective is to supply electricity to cement plants pf TPI polene, thereby supporting the increasing demand for renewable energy. It is anticipated to be completed, with electricity supplied to the distribution system by the end of 2024.

5. Solar Farm Project (Zone3), with a capacity of 11.99 megawatts, is expected to commence operations in 2025.

6. Solar Roof Construction Project

The objective of the project is to provide electricity to the fiber cement manufacturing plants, with an installed capacity of 6.012 megawatts peak or 5.10 megawatts AC. Currently, the progression of the project stands at approximately 10 percent completion, and it is expected to be completed, supplying electricity to the distribution system, by the end of 2024.

7. Wind Power Plant Project (Wind Turbine)

The Company has engaged in the research and subsequent installation of a 5-megawatt Wind Turbine within the limestone quarry concession. The objective is to provide electricity to heavy machinery and trucks at the TPI Polene Public Company Limited's cement plant. The project has been authorized by the Department of Primary Industries and Mines, with an amendment to the mining plan approved by the Environmental Committee. The construction phase is scheduled to begin in the middle of 2024.

8. Waste Fuel Production Plant Project, Factory 3

The project consists of five production units (line 14 — 18) capable to produce fuel from waste, totaling 3,000 tons per day, to prepare fuel for the project's transition from using all coal to use waste-derived fuel in all of the Company's power plants. Commercial production began in October 2023.

9. Incinerator Bottom Ash (IBA) Plant

TPI Polene Power's investment in the development of an Incinerator Bottom Ash (IBA) Plant aims at sorting and recycling heavy ash waste from combustion processes in steam boilers, converting them into valuable substitutes for shale in cement production and sand in construction. Furthermore, metals extracted during the segregation process from the IBA plant will be supplied to the recycling process of a steel melting plant. The project has a production capacity of 2,000 tons per day. The construction of the plant has presently advanced to 30% of its projected completion, with full operational status expected by February 2024.

10. Community Solid Waste Management and Handling Project in Ko Taeo Sub-district Municipality, Songkhla Province

Located in Mueang District, Songkhla Province, the project has the capacity to dispose of 500 tons of waste daily. Currently, it is in the process of installing a 9.95 megawatt generator with the intention of selling 7.92 megawatts of electricity to the Provincial Electricity Authority under a Power Purchase Agreement (PPA) already signed. The project has secured a construction permit and is currently under construction, with progress at approximately 10%. Anticipated completion is expected around the beginning of 2026, at which point electricity sales into the system will commence.

11. Community Waste Fuel Power Plant at the City of Nakhon Ratchasima Municipality, Nakhon Ratchasima Province

Located in Nakhon Ratchasima Municipal City, the project has an installed capacity of 9.9 megawatts with an electricity trading period under contract for 20 years. The Company was announced as the selected bidder for the project. However, due to appeals from competing bidders, the matter is currently awaiting a final decision from the Supreme Administrative Court. Assuming a favorable outcome, it is anticipated that the contract will be finalized, enabling project implementation by 2025, with completion slated for around 2026. Upon contract signing, the municipality intends to engage TPI Polene Power for waste disposal, involving transportation to the Saraburi power plant during its construction phase.

12. Community Waste Fuel Power Plant at Mueang Mukdahan Municipality, Mukdahan Province

The Company participated in the bidding for a project to manage and process community waste into environmentally friendly, closed-system electrical energy in the city of Mukdahan, Mukdahan province. The project has an installed capacity of 9.9 megawatts and an electricity sales capacity of 8 megawatts. The Company was announced as the selected bidder and signed the project contract with the Mukdahan Municipality on December 21, 2023. Subsequently, on February 27, 2024, the Company successfully signed a power purchase agreement with the Provincial Electricity Authority.

The Company has analyzed the operating results to find causes and solutions or improvements so that the Company can eliminate weaknesses in business operations as well as find opportunities to increase revenue and increase profitability by setting goals in each sub-unit, measuring effectiveness, and presenting information and communicating results to employees to stay informed and guidelines to operate in the same direction to be a mechanism for the implementation to achieve the Company's goals. It also looks for opportunities to expand according to the direction of Thailand's Power Development Plan (PDP) and seeks cooperation and business alliances to support the Company's growth.

Performance in 2023 (201-1)

In 2023, the Company directly distributed economic value to stakeholder groups, creating a cumulative economic value of THB 889.90 million. The breakdown is as follows:

Economic Description	Million baht*
(A) Direct Economic Value Generated	
Revenues	10,989.81
(B) Direct Economic Value Distributed	
Operating costs	6,978.41
Employee wages and benefits	143.14
Payments to providers of capital	2,894.79
Payments to government	16.95
Community investments	66.62
Total	10,099.91
(C) Economic value retained (A-B)	889.90

Note : * Based on the Company's separate financial statements

In this regard, the Company has established guidelines for operations related to the obligations of the benefit plans and employee retirement plans, who are key stakeholders and the main driving force of the organization (201-3), consisting of:

- The Company contributes 3.0% of each employee's salary to the Provident Fund, and employees are required to contribute at least 3.0% of their salary. In May 2016, the Company started to contribute money to the Provident Fund and for the year ended December 31, 2023, the Company recognized expenses related to the Provident Fund in the amount of 10,694,981 baht, which covers 100% of employees who are subject to a contribution agreement.
- Retirement plan according to the work regulations of the Company, Section 9, Part 1, Clause 3) when the Company determines that employees who have reached the age of 60 and will retire from being an employee of the Company on January 1 of the next year while being employees with potential and wishing to continue their job, the Company may consider them to continue working with the approval of top executives. In 2023, there are 3 employees who have been considered from the employment-after-retirement program, working as permanent employees.
- At the end of 2023, the Company estimated employee benefit obligations and retirement plans of 142,148,702.26 baht and paid severance payments to employees under the Labor Protection Act B.E. 2541 and the Labor Protection Act (No. 7) B.E. 2562 in the total amount of 4,473,525 baht.

Rights and benefits from investment promotion (201-4)

The Company has received investment promotion privileges under the Investment Promotion Act B.E. 2520 (as amended) from the Board of Investment under the conditions specified in the investment promotion certificate, power plants, waste fuel plants, and natural gas service stations (NGV), and received the key benefits from investment promotions as follows:

- Permission to own land to operate a business promoted as the Board of Investment deems appropriate;
- Exemption from import duty on machinery as approved by the Board of Investment;

- Exemption from corporate income tax from net profit derived from the promoted activity for 8 years from the first day the promoted business earns operating income;
- 50% reduction in the corporate income tax rate from the net profit from the regular rate for 5 years after the expiration date of the corporate income tax exemption period; and
- Exemption from withholding tax on dividends paid from the profit of the promoted business for 8 years.

As of December 31, 2023, the Company's investment promotion privileges for power plants, waste fuel plants, and natural gas (NGV) stations, with the total value of all support and promotion amounting to Baht 3,476.52 million, which can be summarized as follows:

Power Plants/Natural Gas Stations (NGV)	First month with earnings from the promoted business	End of full income tax exemption	50% reduction in the income tax rate has ended.
Waste-to-Energy Power Plant-60MW (TG5)	January 2015	January 2025	January 2030
Waste Heat Power Plant-30MW	January 2016	January 2024	None [1]
Waste-to-Energy Power Plant -70MW	May 2018	May 2026	None [1]
Coal-fired Power Plant-150MW	January 2019	January 2028	None [1]
Waste Fuel Plant	July 2011	End of exemption	June 2024

Notes: [1] Not entitled to 50% reduction in the corporate income tax rate from the net profit from the regular rate for 5 years after the expiration of the corporate income tax exemption period.

In 2023, the Company received corporate tax exemption from BOI business in the amount of Baht 695.30 million.

2. Research and Development

The Company has established a policy to support the creation of added value for municipal solid waste through waste-to-energy initiatives. However, the production of electricity from waste energy in Thailand still faces numerous limitations. Municipal waste in Thailand has different characteristics compared to countries that have successfully converted waste into energy. Additionally, challenges persist in waste management during the production process, as well as in the management of light ash and bottom ash generated from using garbage as fuel. These challenges aim to develop methods for reusing waste for maximum benefit, alongside research and development in other areas such as agriculture and environmental management relevant to the communities surrounding the factory and the Company's stakeholders. Therefore, the Company continually prioritizes research and development of modern technology applicable in the context of Thailand to enhance efficiency in supplying stable electrical energy, promote sustainable development, reduce environmental impacts, and foster reliability within the surrounding community.

Operational Goals

Short-term goals (within 1-2 years)	Long-term goals (at least 3 years)
• Develop machinery used in the power generation process • Develop utilization of heavy ash in power plants for industrial and environmental utilization • Research budget support for research agencies and educational institutes at least 2 projects per year	• Encourage the use of research to bring economic, social, and environmental benefits • Encourage the creation of both internal and external research units and outsources to increase both quantitatively and qualitatively

Management Guidelines

In addition, the Company has entered into a sales and service contract with TPI Polene PCL, thus receiving research and development services that enhance technology and expertise for the Company's personnel. TPI Polene Public Company Limited boasts a research and development team of more than 150 people.

The Company has jointly developed and supported research by assembling a team and hiring teachers from various universities in Thailand, including Chulalongkorn University, Suranaree University of Technology, and Kasetsart University. This support extends to research and development, product development, machinery development, and the advancement of various technologies for activities related to production and the environment, as well as providing training for the Company's personnel.

In addition, the Company provides funding to support research through the fund for community career development, environmental conservation, and rehabilitation projects. The aim is to encourage research conducted by researchers in educational institutions. This support serves as an extension and development of research results that can benefit both the Company and the public.

The Methodology for Monitoring the Effectiveness of Operations

The Company has followed up on the effectiveness of conducting research. The research report was submitted, and meetings were held with the research team to evaluate progress, acknowledge and participate in solving problems, as well as to plan continuous research to expand the scope or detail of the research. This ensures that various research efforts yield confident results at a level that can be used to expand into actual operations with relevant functions. It has been accepted as a practical guideline to use the research results obtained and methods to apply these results to the organization's policies, procedures, and the same industry.

Performance (former EU8)

In 2023, the Company has supported research funding and dispatched its team members of the Company to participate in various research projects with the following topics.

- **The Innovative Use of Bottom Ash Mixed Concrete on sea dome for Marine Habitat** The Innovative Use of Bottom Ash on Seadome for Marine Habitat of Prince of Songkla University by Asst. Prof. Payom Rattanamanee, research project leader and research team: The objectives are to study, analyze, and design details of the sea dome for the restoration of fishery resources as well as to study the utilization of the heavy ash residue from the power plant. Based on such research, the Company can sign a cooperation agreement with relevant public agencies such as the Department of Marine and Coastal Resources, Department of Fisheries, and Provincial Administrative Organization, in order to practically drive the project.
- **A study on value addition of bottom ash and fly ash used as construction materials (TPI Cement Plant)** The study is conducted by Assistant Professor Dr. Weerachai Artharn, School of Engineering, Suranaree University of Technology, and the research team: The objectives are to use resources efficiently along with creating added value of by-products in the production process, reduce the use of resources, and conduct environmental preservation according to the Green Industrial Policy by studying the use of bottom ash and fly ash from waste derived fuels as construction materials and increasing the value of bottom ash and fly ash.
- **Research on Heavy Metals in Bottom Ash Concrete** Thaniya Kasol, Department of Civil and Environmental Engineering, Faculty of Engineering, Prince of Songkhla University: The objective is to study and research-heavy metals in concrete for use in construction and civil engineering works. It is also a reuse of industrial waste without damaging the environment.
- **In 2023, the Company engaged in a collaborative research with the Faculty of Science at Prince of Songkla University under the project "Science for Industry: Sci-Fi."** The project's objective is to create new industrial-based knowledge from scientific research and to innovate alternative technological solutions for industries and their products. This collaboration also focuses on technology transfer and the co-creation of innovations to support grassroots economic development. It also extends to designing measures to encourage investment and develop the economy based on an innovation-based economic framework (BCG Model), with a cooperation period of three years (December 15, 2023, to December 14, 2026).

3. Innovation Technology and Service

Due to the growing needs of the international community, which increasingly favors green energy and renewable resources as sustainable alternatives amidst concerns over climate change, new rules, and regulations are compelling energy entrepreneurs to adapt their business models. They must find ways to mitigate energy loss and address innovative energy challenges. The constant invention of new technologies and the rapid development of various energy innovations are ongoing. Consequently, more entrepreneurs will emerge, focusing on leveraging technology and innovation to enter the energy sector. By integrating technology and innovation into their operations, these entrepreneurs will not only enhance production efficiency but also elevate the overall standard of business operations.

The Company's waste-fueled electricity production business has a policy to transition from using fossil fuels to becoming an electricity producer with alternative fuel, renewable energy, and clean energy in every form, aligning with the growth of the business. Consequently, there is a demand for using waste fuel to produce electricity in large quantities, which is continuously increasing. Moreover, processing waste into energy faces limitations due to the state of waste in Thailand, situated in the humid tropics with variability and very high humidity values. Consequently, machines cannot effectively separate waste with diverse characteristics. Hence, there's a need to research and improve machines suitable for waste separation in Thailand to obtain fuel with quality and standards close to or equal to fossil fuels. This effort contributes to the Company's goal of phasing out the use of fossil fuels without encountering any quality problems with alternative fuels.

Operational Goals

Short-term goals (within 1-2 years)	Long-term goals (at least 3 years)
• Use AI technology to increase production efficiency. • Improve fuel production to reduce production costs. • Develop technology for the business growth of a renewable energy power plant utilizing solar energy, wind energy, and including energy storage, in addition to waste power plants.	• Study technology to advance in the industry Renewable energy such as batteries (Energy Storage system ESS) • Application of Carbon Capture Technology along with the electricity production utilizing clean energy.

Management Guidelines

Throughout past time, the Company has developed and invented innovations to improve machinery, incorporating a production process suitable for actual working conditions to enable efficient waste separation with low operating and maintenance costs. This makes it adaptable for use in machinery installation locations within various waste sources. The aim is to expand operations beyond the Company's power plants, establish a raw material procurement network, reduce operating costs, and efficiently manage and resolve waste disposal issues across various areas of Thailand. The Company is dedicated to conducting business with a serious commitment to success, benefiting the economy, society, and the environment as a whole. Therefore, waste separation and efficient electricity production in all managed areas are crucial to fulfilling the Company's mission of operating with honesty, transparency, and ethical practices, which instill stakeholders' confidence in its operations. If the installed machine fails to run, it will cause problems such as residual waste and low-quality sorted waste, as well as high operating costs, which do not incentivize entrepreneurs to invest or suppliers to engage in the supply chain. To address this, the Company employs a win-win concept in the system to select good suppliers or joint ventures, ensuring the development and maintenance of sustainability throughout the supply chain. Each waste source involved in the Company's projects must meet its goals in waste problem resolution and create additional value by processing waste into fuel for co-operators. In return, the Company receives quality raw materials in sufficient quantities to meet the increased demand in electricity production, ensuring good operating results for the Company.

- Installing waste sorting machines at approximately 16 locations across various waste sources in many provinces, with consideration given to continuously expanding them in the future. This initiative aims to consistently obtain quality raw materials, thereby adding value to waste sources. Additionally, it creates incentives for waste source managers to participate in procuring high-quality raw materials for delivery to the Company. These efforts contribute to sustainable solutions for waste disposal problems in various waste sources and surrounding communities.
- The Company's investment in waste separation machinery is being utilized by waste source operators who rent this equipment. Only high-quality sorted waste is directed to the Company's power plants. The operators will utilize income from waste fuel sales to repay the Company for the machine rental fee. This arrangement not only supports the capital needs of waste source operators but also fosters a mutually beneficial scenario through a win-win situation in the supply chain, in line with the ESG concept encompassing Environment, Social, and Governance factors.
- The Company has developed waste separation technology with a new design for the sorting process line, machinery improvements in collaboration with foreign machinery suppliers, and the development of machinery production within the country. It is continuously tested and improved, with a team of engineers arranged to coordinate and work with personnel at waste separation plants across various waste sources to understand and address problems. Additionally, problems are continuously analyzed, resolved, and improved upon, and the machinery is continuously developed. Furthermore, the Company sends information on various problems, including suggestions, to machinery manufacturers, both domestically and internationally, who are suppliers to the Company, in order to enhance technology and continuously create innovations.

The Company has the policy to support the use of technology and innovation for use in the Company's business, both innovation development from personnel within the organization or importing technology and innovation from manufacturers or experts, focusing on:

- Investment in machinery or new projects that use modern technology and can generate returns worth the investment.
- Technology that can reduce emissions or eliminate greenhouse gases.
- Technology that can reduce the impact on the environment such as reducing emissions or recycling waste from production.
- Implementation of combustion control technology within the boiler using an AI system to increase efficiency.
- Expansion of performance of technology and innovations that have been studied and developed for business use.
- Dissemination and transfer of technology and innovation to the supply chain or relevant stakeholders.

Operational Plan

- Sorting out the bottom ash obtained from the CFB Boiler (Recycle Bottom Ash from the CFB (Circulating Fluidized Bed) Boiler) for use as a material to replace sand or Bed in the boiler.
- Use newly developed and highly efficient solar panel technology.
- Study wind turbine power generation.
- Develop a fuel-feeding system to increase efficiency.
- Implement the expansion of successful innovations to be used in practice.
- Study of energy storage technology.
- Study on carbon storage technology.

Performance

- Installing a machine to sort out bottom ash obtained from CFB Boiler, resulting in cost savings of Baht 11,035,200 per year.
- Use solar panel technology in the project the first one in the country to use the new technology for maximum efficiency. It is planned to be installed in 2023-2024.
- Sign an agreement for the trial installation of a wind turbine as a pilot project, which will be able to carry out the test around the end of 2023.
- Develop metal sorting machinery in the waste fuel production process which increases efficiency and reduces metal problems in waste fuel, improves boiler performance and has been extended to Line 12, along with a plan to complete all lines by 2023.
- Implement the AI boiler combustion control system for trial at Boiler, which is expected to be completed by 2023, along with a plan to expand the system to another 4 boilers.
- The innovations created by the Company lead to the development of skills, knowledge, and work performance among employees, who are stakeholders of the organization. This encourages Thai workers to enhance their potential, increase their knowledge, and foster creativity in developing equipment and machinery to match the capabilities of those in foreign countries. Additionally, it strengthens the concept of environmental friendly sustainable resource use in line with ESG principles
- Create value and benefits for stakeholders in terms of environmental and social aspects contributes to the economy ans society's carbon footprint reduction as a whole

4. System Efficiency – Availability and Reliability [3-3]

The Company is a leader in the waste-to-energy power plant business and the largest renewable energy producer in Thailand. One key success factor in power plant business management is the efficiency of electricity production, which reduces the Company's electricity production costs and mitigates the release of various pollutants contributing to climate change problems.

After all this time, the Company has given importance to research and development of technology and new innovations, developing technology and innovation in the Green Manufacturing process that focuses on increasing the efficiency of using renewable energy and clean energy and continuously increasing the ability to use renewable energy. In addition, the Company has focused on planning to maximize the efficiency of electricity production with stability and safety for supporting people's demand for clean energy that is likely to increase in the future and has focused on reducing the consumption of energy from fossil fuels.

Operational Goals - Power System Efficiency

Short-term goals (within 1-2 years)	Long term goals (at least 3 years)
• Reduce steam consumption per unit of power generation by 1.42% • Increase the efficiency of the water cooling system by changing the water distribution plate to reduce the cooling water temperature by 2 degrees Celsius, resulting in better power generation efficiency. • Use an AI system to control the combustion of the boiler to increase the steam production efficiency by 5%. • Improve the fuel feed system to increase combustion efficiency reduces energy consumption by 2.5%. • Improve the renewable fuel supply system to reduce the use of burning coal by 2.5%. • Improve waste fuel quality to reduce moisture content from 46.5% to less than 45%.	• Stop using coal as fuel for power generation by 2025. • Implement the plant efficiency continuous improvement with a plan to invest approximately 500 million baht within 5 years.

Operational Goals – Availability and Reliability of the Electrical System

Short-term Goal (within 1-2 years)	Long-term Goal (minimum 3 years)
• The increase in the availability value of the machinery operation in power plants (Availability - A) averaged more than 90% per year. • The increase in the overall operational capability of power plants (Performance - P) averaged more than 85% per year.	• The increase in boiler production capacity aims to raise Availability and Performance above the target of 95%. • The increase in solar and wind power plants aims to enhance production capacity and stability of the system. • The decrease in the frequency of power plant shutdowns caused by issues in the electricity grid system to fewer than 2 times per year.

Management Guidelines

The Company has implemented management guidelines aimed at enhancing the efficiency of its electrical systems throughout the organization. The focus is on continuous improvement, aligning with the economic principles of the BCG (Bio-Circular-Green) model for sustainability in the Company's business operations, as outlined below:

- **Establishment of Policies and Plans**

The Company recognizes the importance of electricity production efficiency, aiming to develop the economy holistically through the BCG model as a guideline for operations. Targets have been set for operating the electricity business, becoming a Clean and Green Energy Producer, ceasing the use of coal fuel in electricity production, and investing more in renewable energy power plant projects. Additionally, there is a policy to increase the efficiency of waste fuel production plants and improve the power plants that are in operation. To further enhance efficiency, an investment plan has been established. Operational plans and goals for improving the factory align with the BCG economic policy to keep pace with changes in global energy trends, focusing on developing more clean energy. It is combined with the strengths of the Company and TPI Polene Group, both of which are prepared and possess expertise in developing electrical technology tailored to the circumstances of Thailand. This is complemented by detailed management, determined policies, and plans for the short, medium, and long term, aiming to create stability and sustainability in renewable energy power generation to help mitigate the issue of greenhouse gas emissions in Thailand.

- **Operation**

In general, System Availability is measured as the percentage of time the power plant can supply voltage to customers in one year, while System Reliability is the average of the number of possible power outages per customer per year and the average total power outage time in minutes per customer per year. The Company has guidelines for managing the reliability and availability of the electrical system. These guidelines focus on the continuous improvement of power generation in power plants to ensure efficiency and stability, thereby maintaining availability and reliability within standard criteria, and continuously supplying voltage. The Company has studied the results of operations to analyze weaknesses and identify potential areas for improvement. It has adopted new technology to enhance the efficiency of the electrical system, thereby reducing problems, losses, and costs in various forms. These efforts are carried out by the Company's research team or external experts.

Operations are initiated by studying the original production or action data to modify and develop such as:

1. Machinery improvement by replacing old machines with the new ones such as the fuel feed system into the boiler and the cooling tower
2. Major maintenance to replace machinery or machine parts with new designs such as replacing the boiler tube
3. Investment in the construction of a new plant for the existing power generation unit to increase production capacity and increase efficiency such as waste fuel production plants or backup boilers
4. Implementation of new projects to increase additional power generation capacity such as investing in a solar farm project
5. Investment in AI technology to control steam production for higher efficiency
6. Investing in the installation of a new boiler to enhance electricity production performance and planning major maintenance to increase machine availability.

- **Process to monitor the effectiveness of operations**

1. Follow up on the implementation plan to improve the construction of the short- and medium-term coal consumption adjustment projects to be in accordance with the specified plans.
2. Set a target for coal consumption and determine the index of coal consumption which must be controlled to decrease.
3. Determine fuel consumption index per unit of energy production of both boilers and turbine generators.
4. Determine the availability and performance index of each boiler, turbine, and generator. The Company has a project to invest in the installation of new boilers to increase the efficiency of power generation and to plan major maintenance to increase the availability of the machinery.
5. Determine the index to measure the total cost of power generation per unit.

- Collaborating with machinery manufacturers to seek solutions for problems and enhance efficiency, applying new and developed technology to existing machines, and extending successful improvements to other machines in the production process. Utilizing guidelines and results to improve the production system and employee operating procedures, fostering continuous improvement and innovation by encouraging the creation of innovations among personnel and experts.
- Strategies for enhancing participation with relevant stakeholders concerning management directives or the reporting of operational efficiency. Cooperation with waste producers and suppliers is essential for improving quality, reducing costs, and ensuring adequate quantities of fuel for both present and future use, contributing to the sustainable growth of all parties. This involves securing new sources of waste and investing in waste-to-fuel production facilities, both internally within the company and external waste suppliers.

Operating Results (EU12)

- Improving the efficiency of the water-cooling system: In 2023, 11 units were replaced, with 2 units in continuous operation and 2 units in the process of procurement for installation. The decrease in cooling water temperature by 2 - 4 degrees Celsius has enhanced the efficiency of electricity production. In 2023, the amount of steam used per unit of electricity production decreased by 3.88% compared to 2021.
- An AI system has been applied to control boiler combustion for efficiency enhancement. The installation was completed, and efficiency testing for one boiler was conducted by December 2023. After completing the efficiency evaluation, another four boilers will be operated, costing an investment of approximately Baht 70 million.
- The improvement of the alternative fuel feed system makes the fuel dispersed, reduces blockages, and allows for quicker burning, resulting in increased combustion efficiency. This improvement reduced energy use in 2023 by 2.90% compared to 2022.
- The improvement of the alternative fuel feed system reduces coal usage, enabling greater utilization of alternative fuels, thereby causing the proportion of coal to alternative fuel usage in electricity production to decrease by 2.80% in 2023 compared to 2022.
- The improvement of waste fuel quality reduces moisture and enhances the water drainage system from the fuel pile. Currently, humidity has decreased from 46.50% to 44-45%.
- The use of coal as a fuel for generating electricity has been discontinued, and the project of constructing boilers utilizing alternative fuels has commenced. Two boilers were installed in 2023, and another three boilers will be completed by 2026, enabling the Company to utilize alternative fuels for all electricity production by 2026. Additionally, investments will be made to enhance the production of alternative fuels to meet the increasing demand.
- The Company plans to perform maintenance on the boiler, with the aim of improving and changing materials to extend its lifespan. As a result, in 2023, the power plant achieved an overall machinery operation readiness value of 96.54% (Availability - A).
- The Company has improved the fuel feeding system, enhanced combustion control with AI, and upgraded the cooling system. These improvements help increase the efficiency of electricity production, resulting in the average overall operational capability of the power plant (Performance - P) reaching 88.10% in 2023.

- The impact of shutting down power plants from the Electricity Authority's transmission system has been mitigated through coordination with the Electricity Authority to maintain transmission lines, thereby reducing power outages. This includes measures such as enhancing quick electricity resumption and improving systems within the power plant to enable immediate operation while awaiting power restoration.

5. Anti-Corruption (3-3)

Corruption is a major problem for the country's economic and social development in numerous areas such as injustice and lack of investor trust, causing damage to the country. The Company is aware of honesty and transparency and established an Anti-Fraud and Corruption policy to build trust and acceptance from the Company's stakeholders which leads to the creation of a good corporate culture in the future.

Operational Goals

Anti-Corruption
• Employees will receive training courses on anti-corruption periodically every year. • Business partners acknowledge the policies and guidelines of the anti-corruption of the organization every year.

Management Guidelines

The Company has established a policy that strictly prohibits board members, executives, and employees at all levels from accepting or being involved in any form of corruption, whether directly or indirectly. The policy mandates that all personnel adhere to anti-corruption guidelines, in alignment with the principles of good corporate governance, the company's ethical code, regulations, and applicable laws.

The Company has defined the scope of stakeholders involved in the Anti-Fraud and Corruption policy into 2 categories as follows:

1) Internal organization consisting of directors, executives, and employees of the Company at all levels.

2) External organization consisting of customers or suppliers of goods or services, contractors, sub-contractors, partners, creditors, government agencies, and private agencies.

Additionally, the Company has specified the main roles and responsibilities of the Board of Directors, sub-committees, and agencies involved in anti-corruption operations as follows:

Board of Directors	Chairman of the Management Committee and members of the Management Committee	Audit Committee	Internal Audit Supervisor
• Set policies and supervise to have a system that supports effective anti-corruption.	• Set up a system to promote and support the anti-corruption policy. to communicate to employees and related parties • Review operations and policies to be in line with various changing situations such as business conditions, rules, regulations and requirements of various laws, etc.	• Review the financial and accounting reporting system. internal control system internal audit system and risk management system to be concise, appropriate, modern and efficient	• Examine and review the operation to ensure that it is in accordance with the policy, practice guidelines, operational authority regulations and laws , including regulatory body requirements. • Report to the Audit Committee.

Corporate Governance Principles

http://www.tpipolenepower.co.th/index.php/th/th-investment/cg-principle/cg-principle-h

TPI Polene's Code of Conduc

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/code-of-conduct-th

Employee Handbook

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/empprinciple

Fraud-Related Risk Assessment (205-1)

Work groups/departments that have been assessed for fraud and corruption risks	Identify significant fraud and corruption risks	Number of operating units that have been assessed for fraud and corruption risks	Percentage of operational units assessed for fraud and corruption risks*
Procurement Department Groups/functions that have been assessed for risks linked to corruption such as the accounting and finance division, the management division, the engineering division, the sales and marketing division.	Process related to cash Procurement process - Assess the risks of suppliers whether they participate in anti-corruption both inside and outside the organization or not. - Assessment of whether business partners have codes of conduct or not. - The Company's working group for receiving complaints for partners and customers.	18 agencies have been assessed for fraud-related risks.	Departments have received a fraud and corruption risk assessment that account for 100%
Total number of operating units assessed for fraud related risks		18	100

* Percentage of operating units assessed for fraud and corruption risks is based on the total number of operating units of the organization in the reporting period.

In addition, the Company has established guidelines for combating corruption to provide a framework for operations for employees at all levels. The aim is for all employees to work together to monitor and not neglect any instances of corruption. When observing actions considered corrupt, the Company will be fair and implement measures to protect complainants or those who cooperate in reporting instances of corruption. Furthermore, the Company aims to raise awareness among its employees through regular publications, communication, and training sessions to provide knowledge about the anti-corruption policy every year. This entails broadening the scope of anti-corruption policy implementation to encompass the Company's suppliers through campaigns aimed at fostering stakeholder understanding of corrupt behavior, performance duties, or omissions. Detailed information regarding measures, complaint channels, and penalties can be found in the 'Anti-Corruption' section of the Company's 2023 Annual Report (Form 56-1 One Report 2023).

Anti-Fraud and Corruption Policy

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/pdpa-2

Supplier Code of Conduct in procurement and employment

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/supplier-code-of-conduct-th

Personal Data Protection Policy

http://www.tpipolenepower.co.th/index.php/th/th-aboutus/pdpa

International Human Rights Policy

http://www.tpipolenepower.co.th/index.php/th/th-investment/social-responsibility-th

Performance (205-2)

2023, the Company's operating results are as follows:

1. Require all departments, especially those dealing with external parties, to assess risks linked to fraud and/or corruption, which 18 units were evaluated for risks linked to fraud accounting for 100%.
2. 4.56% of total of 1,141 employees attended the anti-corruption training courses and 100% of the employees acknowledged the Anti-Fraud and Corruption Policy
3. 96.05% of the total of 557 suppliers were aware of the organization's Anti-Fraud and Corruption Policy. (Excluding government agencies, local municipalities, and state enterprises that are subject to constraints on endorsing supplier codes of conduct.)
4. There were no lawsuits in which the organization has been sued for fraud and there were no corruption incidents with suppliers, or cooperation partners, including corruption incidents that occur within the organization. (205-3)

Board of Directors	Total number of people who have communicated the anti-corruption policies and practices of the organization (persons)	Percentage
Board of Directors	16	100
Level		
TOP EXECUTIVE	2	100
AVP/ VP/ SVP	8	100
ASST.DEPT. MGR. - DEPT. MGR.)	19	100
ASST.SUP.– SECTION MGR.	186	100
OFFICER	926	100
Total	1,141	100
Classified by place of operation Head office Saraburi Power Plant Total	 94 1,047 1,141	 100 100 100
Business Partner		
Supplier	577	96.05

Information of committees and employees who have completed anti-corruption training courses (205-2)

Type	Number of persons who received training courses related to anti-corruption (persons)	Percentage of total employees
Board of Directors	16	100
Total number of employees 1,141 people		
Classified by employee group		
TOP EXECUTIVE	-	-
AVP/ VP/ SVP	-	-
ASST.DEPT MGR.- DEPT. MGR.	-	0.26
ASST.SUP. – SECTION MGR.	13	3.77
OFFICER	4	0.53
Total	17	4.56
Classified by place of operation		
Head office	5	1.67
Saraburi Plant	12	2.89
Total	17	4.56

6. Procurement Practices

The Company primarily emphasizes procuring machinery, raw materials, and services from domestic manufacturers and contractors, as deemed appropriate, to minimize expenses associated with importing machinery from overseas when it could be sourced domestically.

The main raw materials in the electricity production process include waste fuel used to replace coal, which is processed from municipal solid waste, deteriorated tires, non-hazardous and high-heating industrial waste procured from entrepreneurs at waste collection points nationwide. Quality, quantity, and timely delivery of products are considered, along with the requirements of environmental laws, to ensure continuous and sustainable raw material supply into the production process. This helps reduce the Company's production costs, leading to stability and efficiency in electricity production, as well as income distribution to the community and promotion of the overall economy.

Operational Goals

Procurement Practices
• Each year, more suppliers continuously acknowledge the Supplier Code of Conduct. • The ESG (Environmental, Social, and Governance) Risk is assessed using a Self-Declaration form from the Company's suppliers. • The Company requires an On-site ESG Audit to evaluate Tier 1 suppliers at least once every two years. This is done in order to review and summarize the suppliers for the monitoring plan and to conduct audits in the operating area.

Management Guidelines

The Company has established a purchasing policy in accordance with its Supplier Code of Conduct, which is to be followed by its suppliers. This policy is aimed at promoting transparency, preventing corruption and conflicts of interest, ensuring the transparency, fairness, and equality of the Company's business operations, avoiding discrimination, and fostering honesty in business dealings. These efforts also seek to strengthen good relationships with suppliers in line with principles of corporate governance under good corporate governance in accordance with the Company's Code of Conduct, related regulations and laws, aiming to develop into a sustainable organization. The details are as follows:

1. Preparing the Supplier Code of Conduct in collaboration with suppliers, encompassing guidelines on purchasing, business ethics, business operations, safety and occupational health, labor and human rights, environmental impacts, and community and social impacts.

2. Establishing regulations and guidelines for recruiting and evaluating existing and new suppliers, while adhering to the Company's Supplier Code of Conduct and considering social, human rights, and environmental issues in procurement. The operational steps are as follows:

2.1 Recruitment and selection of existing and new vendors

All vendors must be approved and listed in the Approved Vender List (AVL) with the steps as follows:

1) ในNew vendors can be recruited by searching for information from quotations, brochures, catalogs, the Yellow Pages (telephone directory), basic information from buyers, market information for the respective type of products or services, and other relevant sources, etc.

2) Newly recruited vendors will be selected according to specified criteria, considering the following topics:

- Details of product or service standards desired
- Details of operations
- Payment terms or delivery conditions

- Convenience and speed in contacting and coordinating
- Survey of suppliers/subcontractors at the production site
- Environmental, social, and human rights issues, including refraining from using illegal labor such as child labor, slave labor, etc.
- Others as appropriate

The information for vendor selection is attached to the price screening sheet, and then it is requested for consideration and approval from an authorized person. Once approved, it will be recorded and listed in the AVL.

2.2 Listing vendors into the AVL

Existing and newly approved vendors will be listed on the AVL, categorized by product or service type, including:

(1) List of approved vendors/subcontractors.

(2) List of approved suppliers/subcontractors (general) and

(3) List of approved suppliers/subcontractors (special)

All AVLs will be reviewed and revised whenever changes occur, or at least every 6 months.

2.3 Evaluation of approved vendors listed on AVL

Vendors are listed on the AVL upon meeting specific criteria, which are divided into:

(1) Evaluation of delivery time and product condition during initial inspection;

(2) Evaluation of product or service quality including the cooperation of vendors; and

(3) Evaluation of services and cooperation in issues related to procurement or prices will be conducted.

The Purchasing Department will collect evaluation results from all involved parties to summarize the outcomes of delivery/subcontracting. Any vendors whose evaluation score falls below 60 points continuously for two consecutive evaluations will be considered for cancellation and removal from the AVL if they fail to improve their performance.

2.4 Establishing a framework for evaluating vendors listed on the AVL

The vendors will be classified into groups. Vendors contacted and purchased by the Purchasing Department of the Head Office will be evaluated every year.

3. Establishing criteria for identifying Critical Tier 1 suppliers and Critical Non-Tier 1 suppliers is as follows:

3.1 Critical Tier 1 suppliers refer to suppliers who directly produce or provide services to the Company, with an order value greater than or equal to Baht 16 million per year.

In 2023, there were 39 Critical Tier 1 suppliers, accounting for 7% of the total of 557 suppliers.

3.2 Critical Non-Tier 1 suppliers refer to suppliers who produce or provide services to Critical Tier 1 suppliers. The Company does not have any Critical Non-Tier 1 suppliers.

4. The Company assesses economic risks stemming from its suppliers, including risk from reliance on a limited number of suppliers and risk from receiving products or services of poor quality, etc.

5. The Company has assessed ESG Risks arising from its suppliers by specifying risk issues in all three areas as follows:

Environment	Society/ Human Rights	Corporate Governance
1) Compliance with environmental laws including air pollution, water, energy and waste. 2) Promotion or improvement to reduce global warming 3) Handling of raw materials/hazardous waste by authorized disposal operators.	1) Non-discrimination against suppliers 2) Use of illegal labor including child labor, coerced labor, forced labor, and alien labor 3) Management of hygiene and safety in the work place	1) Business operations that are not illegal / Business operations according to the Code of Conduct 2) Having policy against corruption 3) Not disclosing business secrets

The risk management process under the Company's policy is utilized, adopting the criteria of The Committee of Sponsoring Organizations of the Treadway Commission - Enterprise Risk Management (COSO-ERM) as a guideline for the Company's risk management. More details is available in the Section "Risk Management Process" on Page 119

6. The On-site ESG Audit establishes criteria for selecting suppliers that must be assessed with the On-site ESG Audit as follows:

6.1 Critical Tier 1 suppliers refer to suppliers who produce or directly provide services to the Company. They will be sent the assessment form for self-assessment at least once every 2 years in order to review and summarize the suppliers for the monitoring plan and continue to conduct audits in the operating area.

6.2 Critical Non-Tier 1 suppliers refer to suppliers who produce or directly provide services to Critical Tier 1 suppliers. The Company does not have any Critical Non-Tier 1 suppliers.

7. The Company has careful and strict payment procedures for suppliers, in accordance with the terms of payment agreed upon with suppliers. The Company has a robust internal control system that can be transparently verified and includes a review process. The payment period is specified at 30 - 60 days after the Company receives the product or service, depending on the agreement made with each supplier, and the Company will not default on payments to suppliers. In 2023, The Company's debt payment period was 28 days.

- **Guidelines for Measuring Effectiveness Against Established Goals**
  In 2024, the Company has set a goal for 100% of suppliers to sign an acknowledgment of the Supplier Code of Conduct. This aims to facilitate communication and ensure suppliers are aware of and adhere to the Company's procurement guidelines. In 2023, 96.05% of suppliers had signed the acknowledgment.
- **Lessons Learned from the Implementation of Procurement Practices**
  - Suppliers in government agencies or state enterprise groups acknowledged the Supplier Code of Conduct in practice without signing the document.
  - Large companies listed on the Stock Exchange of Thailand understand and cooperate in signing to acknowledge the Supplier Code of Conduct and procurement practices.
- **Engagement with Stakeholders in Procurement Practices**
  - The Company aims to have all suppliers sign the Supplier Code of Conduct.
  - The Company has sent a Self-Declaration to 7% of key suppliers for use in recruiting new suppliers according to the criteria set by the Company.
  - The Company conducts On-site ESG Audit with key suppliers to ensure that their business operations comply with the Company's sustainable procurement policy.
  - The Company has established communication channels for receiving complaints among the Company, suppliers, and contractors, such as the Company's website.

Performance in 2023

- 100% of all new suppliers to the Company must meet criteria for recruiting and selecting new customers, taking into account social, human rights, and environmental issues in procurement, as well as signing the Supplier Code of Conduct.
- 96.05% of the total 557 suppliers signed the Supplier Code of Conduct.
- The assessment of economic risks arising from the Company's suppliers, such as risks from reliance on a limited number of suppliers, and risks from receipt of poor-quality products or services. In 2023, it was found that there were no economic risks caused by suppliers, as the risk level was deemed moderate and acceptable.

- The assessment of ESG Risk using a Self-Declaration is sent to suppliers for their self-evaluation, aimed at appropriately managing suppliers' business operations in line with the Company's ESG policy. In 2023, 39 key suppliers were assessed for ESG Risk, accounting for 7% of the total 557 suppliers, and no risks from suppliers were identified.
- The On-site ESG Audit follows completion of self-declaration forms by suppliers. For Critical Tier 1suppliers, the Company has a plan to continue monitoring and conducting audits in the operating areas at least once every 2 years. In 2023, 39 suppliers must undergo on-site ESG audits, accounting for 7% of the total 557 suppliers, and no risks from suppliers were identified.
- In 2023, there were no complaints received from suppliers regarding procurement.

Procurement Budget Paid to Local Suppliers Unit: Million Baht

Types of Products and Services Locally Procured	2021	2022	2023
Purchase of Local Products and Services	1,800.60	2,618.29	1,675.68
Proportion of Local Product and Service Purchase (%)	40.60	60.60	71.96

Note: Local suppliers are suppleirs that provide raw materials, products, or services to the Company, operating with offices located in Thailand, trading in Baht currency, and complying with VAT payment regulations.

Furthermore, in 2023, the Company purchased community waste from waste collection points in the country, which are managed by government agencies and local municipalities. The total amount of raw materials entering the production process was 2.77 million tons, valued at approximately Baht 1,420 million. Additionally, the Company received approximately 11,484 tons of non-hazardous industrial waste, which was used as fuel in the production process. The Company also contributed to societal well-being by disposing of 1,638 tons of COVID-19 infected waste during the first four months of the year.

7. Risk and Crisis Management

The Company places importance on risk and crisis management, effectively managing risks while considering the balance among risks, rewards, and the mutual benefits of stakeholders. This approach increases the opportunity to achieve the organization's goals and create sustainable added value. Additionally, it reduces potential causes of damage, including minimizing the level and size of the damage. Furthermore, it enhances the Company's ability to deal with emergency situations that may happen and effectively adapt to current and future challenges.

In 2023, the Company focused on managing "ESG Risk," which is the risk related to Environmental, Social, and Governance issues, especially managing risks caused by climate change. At present, the impacts of climate change and global warming are becoming more severe. As a result, the Company has disclosed regulatory information regarding risks, opportunities, and impacts that happen or may happen related to climate change affecting the Company's business operations, financial strategy, and planning. The guidelines of the Task Force on Climate-Related Financial Disclosures (TCFD) have been utilized as a framework for overseeing climate change operations. Climate change risk management is considered one of the key goals of the organization and is also part of environmental risk management.

Operational Goals

Short-term Goals (within 1-2 years)	Long-term Goals (minimum 3 years)
• Preparing a plan to assess and manage risks that arise from both internal and external factors. • Preparing emergency plans for various scenarios, ensuring readiness, and reviewing plans and systems. • Implementing climate change risk management by replacing coal with waste fuel entirely by 2024. • Managing the risk of shortages in key production inputs to prevent business interruptions. • Implementing financial liquidity management to support business operations or invest in various new projects.	• Seeking opportunities to produce renewable energy without using fuel, such as wind and solar energy. • Increasing the production of alternative fuels, such as energy trees or Napier Grass, to partially replace waste fuel. • Becoming a direct contract party with the government sector to receive waste. • Seeking additional contract parties for procuring waste. • Achieving carbon neutrality by 2037.

Administrative and Managerial Operations

The Company conducts risk management and reviews risks by considering the changing environment factors along with business operations on the basis of sustainable development in economic, social, and environmental dimensions. The Company has established a risk management policy as follows:

- Establish processes, guidelines, and measures for risk management that are internationally appropriate and adequate, including identification, analysis, assessment, prioritization, management, control, monitoring, reporting, evaluation, and ongoing and consistent information about risks, and practices throughout the Company.
- Measure the risks in terms of quality, such as reputation, image of the Company and quantitative, such as loss results, decrease in income, cost increase by considering the potential opportunities and impacts.
- Set a risk limit for the damage that may occur to be within the level that the Company can accept and specify events or risk levels that are warning signs for operators to take certain actions in order not to exceed the specified risk limit.
- Have written operating regulations for executives and practitioners practice which is a risk control from operations.
- A risk management culture has been fostered throughout the organization, aiming to enhance understanding, awareness, and shared responsibility concerning risk management, control, and its impacts. Operations between all risk owners and Risk Management Department are interconnected to monitor, review, and evaluate significant risks that may arise. Additionally, an annual risk management report is prepared and proposed to the Risk Management Committee. This includes training initiatives to systematically disseminate knowledge about risk and risk management across all personnel levels, including directors, senior executives, and employees, through the course “Risk Management in the Organization” at least twice a year.

In 2023, the Company participated in the Climate Change Management Prototype Project of the Stock Exchange of Thailand (SET) from June to November. This involved directors, senior executives, and employees of both the Company and TPI Polene Public Company Limited, totaling 28 individuals. The training sessions, conducted both online and on-site with SET, took place on 9 June, 4 August, 20 October, and 16 November 2023, respectively.

Risk Management Process

The Company has a risk management process under its policy and has additionally embraced the principles of the Committee of Sponsoring Organizations of the Treadway Commission - Enterprise Risk Management (COSO-ERM) as a framework of business operation guidelines to ensure that its business operations are in line with sustainable development goals. The COSO-ERM criteria encompass 8 elements:

1. Internal Environment
2. Objective Setting
3. Event Identification
4. Risk Assessment
5. Risk Response
6. Control Activities
7. Information & Communication
8. Monitoring

Follow-up and Review

In 2023, the Company reviewed significant risk issues by classifying them into 7 types as follows:

Type of Risk	Overall Risk Assessment Results	Risk Control Measures
Strategic Risk is the risk that arises from the inability to operate the business according to established plans, in compliance with internal and external factors.	Medium	(1) Risk management of using waste fuel to replace coal for reducing production costs involves managing the quantity and cost of waste procurement, including factors such as the moisture properties of the garbage, etc. (2) Investments in environmentally friendly projects. (3) Investments in projects and businesses with high growth potential in the future necessitate a feasibility study and analysis of key factors' sensitivity before investing, as well as monitoring investment progress to mitigate the risks of potentially lower-than-targeted investment returns, delays in project implementation compared to the planned schedule, and exceeding the set budget, among other risks. (4) Finding appropriate funding sources for project expansion.
Operational Risk is the risk rekated to operations caused by internal operating processes or external factors that impact revenue and operating costs.	Medium	The Company has controlled risks from internal or external factors that affect business operations to a level acceptable to the organization, such as (1) Cost control and ensuring that the procurement of raw materials is both sufficient and within the allocated budget. (2) Procuring sufficient key inputs for production to prevent business interruption Control of document operations, recording information in the system correctly and efficiently

Type of Risk	Overall Risk Assessment Results	Risk Control Measures
Financial Risk is the risk arising from a lack of liquidity or available funds for conducting business or investing in various projects.	Medium	(1) Carefully implementing financial policies within the specified budget to ensure appropriate remuneration and sufficient cash flow for effective business operations. (2) Monitoring and managing financial risks, such as risks from exchange rate fluctuations, interest rate. Managing liquidity or funding sources to ensure they are sufficient for business operations, such as providing a revolving line of credit, long-term loans, and issuing bonds, in response to the changing trends in the exchange rate market, money market, and capital market.
Compliance Risk is the risk caused by the inability to adhere to relevant rules and regulations, which may be inappropriate or outdated, thus impeding operations and potentially leading to legal repercussions.	Medium	(1) The Company has established a unit to control the compliance with regulations and policies of the government sector. (2) Supervising and controlling the operations to be consistent with the regulations of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand
Environment Risk is the risk arising from pollutant emissions during the production process, leading to adverse impacts on the environment.	Medium	(1) The Company implements a Net Zero Greenhouse Gas Emission policy, ensuring that the production process does not generate dust, chemical residues, or wastewater that could adversely affect the community's environment. (2) The Company has prioritized managing climate change risks, with its main goal being to replace coal with 100% waste fuel in the production process by 2024 and achieve carbon neutrality by 2037.
Social Risk is the risk of human resource management, safety, occupational health and working environment, including violations of human rights, etc.	Medium	(1) The Company has a policy to enhance employees' knowledge, understanding, and skills, providing appropriate remuneration and respecting human rights through fair benefits and equality. (2) Preparing a safety operating manual according to industry standards, as well as establishing a complaint channel and a Welfare Committee to oversee employee safety and occupational health.
Governance Risk is the risk associated with managing transparency in operations and addressing corruption.	Medium	The Company has a policy to oversee the operations of each department in accordance with the principles of corporate governance, the organization's Code of Conduct, and ethics, strictly aiming to prevent corruption.

Note : Risk scores are divided into 4 levels as follows:

Overall Risk Level	Score	Definition
Low	1-2	Acceptable level: No need to control risks or additional management
Moderate	3-6	Acceptable level: It must be controlled to prevent the risk from turning to unacceptable levels.
High	7-12	Unacceptable level: It needs to manage the risk to remain at an acceptable level.
Very High	13-25	Unacceptable level: It needs to be urgently managed to reach an acceptable level immediately.

Emerging Risk

The Company has identified emerging risks expected to arise in 2024, along with corresponding measures for managing them, as follows:

1. Risk arising from sudden changes in consumer demand due to environmental and climate conservation trends Nowadays, society is increasingly concerned about the environment and climate change which is growing more severe both nationally and internationally. Across the globe, there is widespread support for banning plastic bags and promoting the use of recycled materials to mitigate environmental impact. Consequently, consumer behavior has shifted, prompting entrepreneurs to prioritize environmental considerations and meet stakeholder expectations regarding sustainable environmental management. This has led the Company to adjust its business operations to ensure sustainability.

The Company emphasizes the importance of shifted consumer behavior in response to society's increasing focus on environmental concerns. To achieve this, the Company has enhanced efficiency in every production process, aiming to reduce resource and energy consumption. This includes adopting innovative technologies, such as installing solar rooftop systems in factories, and prioritizing zero-waste production processes.

2. Risk arising from rapid change and the use of advanced technology Currently, technology, including digital technology, is developing rapidly and continuously, affecting changes in marketing, product development, business models, business opportunities and challenges. The exponential growth of automated machinery, artificial intelligence technology, and robot technology enhances the efficiency of business operations. However, it also poses challenges for infrastructure and personnel development to keep pace with technological advancements. Rapid analysis of Big Data may also create risks related to human rights and ethics.

TPI Polene Group is aware of the changes in advanced technology; therefore, it has elevated its innovation efforts, including the adoption of new technology to modernize and develop factories into Smart Plants, enhancing competitiveness by focusing on business operations and responding to stakeholders. Additionally, the Company has also prioritized cyber threat management and enhanced personnel knowledge to align with new technology.

3. Risk arising from adapting to natural disaster crises Natural disasters resulting from climate change, such as floods and droughts, are increasingly becoming more severe. If the Company fails to adapt adequately to address these challenges, it may suffer serious damage

The Company Group is aware of the potential for natural disaster crises and has prepared to address such situations by practicing emergency plans aimed at ensuring business continuity across various scenarios. Through these practices, executives and related employees acknowledge their roles, responsibilities, and any shortcomings that may arise during operations. This preparation allows for the implementation of various backup measures to address these issues proactively, mitigating the impact before a real disaster occurs.

For details on risk management, please refer to the Company's Form 56-1 One Report 2023, specifically the section titled "Risk Management" on page

Further details are also available at

http://www.tpipolenepower.co.th/index.php/th/th-investment/ar/ar-h/category/94-annual-report-form-56-1

Crisis Management

The Company has a Business Continuity Plan (BCP) to address significant risks and public health risks that may arise, ensuring the smooth operation of the Company's business. Guidelines and plans for potential risk management are established, covering various areas as follows:

- Identification of significant risks including fire, storm, flood, terrorism, riot, protest, and cyber threats
- Important activities/work of departments
- Events, situations or problems that may arise due to significant risks
- Impacts occurred
- Activities and problem-solving methods
- Supporting plan and troubleshooting steps
- Responsible person and coordinator

The central working group and related departments will jointly monitor, review and evaluate the BCP plan on an annual basis.

8. Information Security (3-3)

The Company is well aware of current cyber threats caused by malicious people or hackers through methods and tools to cause damage to information systems or data theft in forms becoming more and more complicated day by day. Lack of efficient operations may cause widespread impact and damage to the Company, its affiliates, business partners, including agencies that contact the Company and its affiliates, both in terms of trade information, important information about the Company, and related persons including the reputation of the Company and its affiliates.

Information security is one of the most important issues in power business operations as information in the Company's information system is commercially sensitive. It is of great importance in determining the Company's commercial strategy. Leakage of information will seriously affect Company's reputation, credibility, income, as well as important stakeholders of the company.

Operational Goals

Data Security
• Preventing or reducing damage caused by cyber threats involves implementing prevention and surveillance measures to minimize the chance of occurrence. • Establishing Cyber Security Awareness among employees at all levels (100%) to enhance their understanding and knowledge of various forms of cyber threats, thereby reducing the risk of cyber threats in the Company's operations and the daily lives of employees.

Management Guidelines

The Company has established a security policy for its information systems and those of its subsidiaries (IT Security). This policy mandates regular reviews of the cyber threat prevention system, which includes the development and improvement of cyber protection systems. It ensures that the Company and its subsidiaries stay up to date with cyber threats, which are continually evolving in both methods and seriousness concerning threats to information systems. The details are as follows:

1. Communication systems and networks outside the Company and its subsidiaries

The Company has installed a firewall to segregate the external and internal network systems of both the Company and its affiliates. This measure is designed to thwart potential attacks from malicious individuals or hackers targeting the information systems of the Company and its affiliates from outside sources.

2. Host computer and client computers

2.1 The Company closes vulnerabilities in the Cyber Security Patching for the Computer Operating System.

2.2 The Company has installed Endpoint Security to protect against threats from computer viruses and various malware programs.

3. Connecting to the information systems of the Company and its subsidiaries from the branch offices of the Company and its subsidiaries or outside agencies

The Company mandates the use of a Virtual Private Network (VPN) for connecting to its work systems and those of its affiliates. This measure ensures the secure transmission of data between branch offices or external agencies and the Company's information systems, including its subsidiaries.

4. Knowledge Base

4.1 ทีมThe information system administrator team regularly studies cybersecurity.

4.2 General employees are provided with basic Cyber Security Awareness Training as a guideline for operating and using information systems to stay safe from cyber threats.

5. Review of Information Systems by External Auditors

The Company undergoes annual reviews of its information system by external auditors, following standards or frameworks such as ITIL, ISO27001, etc. These reviews identify deficiencies, which the Company then addresses by making improvements to ensure the security of its information systems.

The Company is well aware of the importance of keeping internal information safe and preventing any leakage that could lead to significant damage at various levels. Therefore, the Company's directors, executives, and employees at all levels must adhere to the Company's practices for maintaining internal information. Additionally, the Company established a Personal Data Protection Policy in 2021 as a guideline for employees at all levels to follow in handling the personal data of customers, suppliers, employees, and related parties. Data must be used strictly in accordance with the Personal Data Protection Act, covering the processes of storing, collecting, and disclosing information securely. This includes granting the data subject the right to access, check, and withdraw consent to their information at any time. Violations of the Company's policies and practices will be thoroughly investigated and punished accordingly, with measures including prosecution and full compensation for damages as specified by law.

Performance in 2023 (418-1)

The development of an information security system requires significant technological involvement and the formation of a team to prevent cyber threats, necessitating time for information study and a relatively high investment budget. Therefore, it is essential to thoroughly assess the information and evaluate its worthiness and appropriateness for use within the organization before requesting budget approval.

During the year 2023, the Information Technology Department conducted a study on guidelines for developing information security by inviting a team of experts in cyber threat prevention. The purpose was to seek basic knowledge and advice on developing and enhancing cybersecurity protection systems, including:

- National Telecom Public Company Limited
- The Practical Solution Public Company Limited
- Advanced Info Service Public Company Limited
- Distributors of cyber protection equipment and systems, both domestically and internationally, especially the products and services of the following brands such as Palo Alto Networks, Check Point, Fortinet, McAfee, Cisco, etc.

Based on the information provided by the service providers mentioned above, the Company has evaluated the cybersecurity system enhancement plan in phases as follows:-

1. Phase 0: Through evaluating the current cybersecurity system, the Company assesses its capability to protect against cyber threats.

2. Following the receipt of the test results during Phase 0, the service provider will compile a report assessing the Company's cyber threat protection capabilities and offering recommendations for enhancing cybersecurity systems. This comprehensive report will be structured into three distinct phases for clarity and coherence.

1) Phase I

To safeguard against highly severe threats that may compromise the Company's operational systems. In the event of such an occurrence, the Company may experience disruptions in normal operations and incur significant financial losses.

2) Phase II

To safeguard against medium-level threats that may target the Company's operational systems. In the event of an incident, the impact may not be as severe as outlined in Phase 1. The Company's operations can still continue, albeit with potential temporary disruptions, and there may be some financial losses incurred.

3) Phase III

To safeguard the Company's work systems against potential minor threats. While these threats may not initially pose severe impacts, they could accumulate damage and escalate in severity over time.

3. The establishment of a cyber threat prevention team by the Company is comparable to recruiting specialized doctors. Presently, there remains a shortage of personnel in this field-individuals with specialized expertise in cyber security who necessitate dedicated hours for work in this specific domain. High wages are typically Generally, hiring external team is required to monitor cyber security.

The Cyber Danger Surveillance Team will continuously analyze data traffic flow through Data Traffic Log Analysis, requiring the processing of a significant volume of data at all times. Should any suspicious activity be detected, the team will promptly implement preventive or corrective measures according to the agreed scope outlined in the service contract and will promptly notify the Company's designated personnel.

Types of Data Leaks	Management Methods and Solutions	Number of Leaks		
		2021	2022	2023
Unlawful access to information in information systems from unauthorized persons	Regularly review information systems by external information system auditors every year.	0	0	0
Access to information in the information system by hackers	Protected by information devices such as Firewall/IPS and Endpoint Security at the server and user machines and regularly renew the service agreement.	0	0	0

In 2023, the Company did not receive any complaints regarding personal data violations.

Note

1. For investment in cyber defense, it cannot be a one-time investment. The Company needs to make regular investments to develop a system capable of combating cyber threats that evolve with the times and technology. This is particularly crucial today, as hackers are also leveraging AI to enhance their cyber attack capabilities. If the Company invests only once, it will only acquire technology at the time of purchasing cyber protection equipment and systems, rendering it unable to prevent future threats.

2. After the service provider has completed all steps, the plan or proposal, along with a budget, will be summarized and presented to senior executives or the Board of Directors for selection and approval of the next budget.

Plans for Further Operations in the Future

1. The Company will conduct a cybersecurity review for itself and its subsidiaries through a Cybersecurity Assessment to identify vulnerabilities. Additionally, it will continue exploring ways to enhance and develop additional cyber defense systems based on existing ones.
2. The Company will develop a knowledge base system regarding cyber threats and guidelines for prevention to be used to disseminate knowledge to users of the Company's and subsidiaries ' information systems.
3. The Company will establish a Cyber Security Operations Team for 24-hour surveillance and establish a Cyber Security Operations Center (CSOC) to act as a unit to monitor cyber threats.

About This Report [2-3]

TPI Polene Power Public Company Limited has prepared the Sustainability Report for the year 2023 based on the reporting disclosure principles in accordance with GRI International Reporting Standards or GRI Standards 2021 to disclose management guidelines and sustainability performance covering economic, environmental, social, and the human rights dimensions. The details of the Sustainability Report are as follows:

Level of information disclosed	TPIPP has reported in accordance with the GRI Standards for the period from 1 January 2023 – 31 December 2023
Reporting cycle	Yearly
Reporting scope [2-2]	Disclosure of information in this report is within the scope of reporting only within TPI Polene Power Public Company Limited, excluding its subsidiaries and associated companies.
Providing assurance [2-5]	TPI Polene Power Public Company Limited does not have a policy to procure a third party for assurance.
Previous report	The Sustainability Report 2022 of TPI Polene Power Public Company Limited

GRI content index

Statement of use	TPIPP has reported in accordance with the GRI Standards for the period from 1 January 2023 – 31 December 2023
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	N/A

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	24	A orange cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.			
	2-2 Entities included in the organization's sustainability reporting	126				
	2-3 Reporting period, frequency and contact point	121-126				
	2-4 Restatements of information	No any restatements of information				
	2-5 External assurance	No external assurance				
	2-6 Activities, value chain and other business relationships	24-27, 51				
	2-7 Employees	29				
	2-8 Workers who are not employees	29				
	2-9 Governance structure and composition	31-32, 34-35				
	2-10 Nomination and selection of the highest governance body	56-1 One Report 2023: 7.2.4 Nomination and appointment of directors and sub-directors and presidents				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	2-11 Chair of the highest governance body	56-1 One Report 2023: Roles and Responsibilities of the Chairman of the Board of Directors				
	2-12 Role of the highest governance body in overseeing the management of impacts	34-35				
	2-13 Delegation of responsibility for managing impacts	34				
	2-14 Role of the highest governance body in sustainability reporting	62				
	2-15 Conflicts of interest	35				
	2-16 Communication of critical concerns	56-59				
	2-17 Collective knowledge of the highest governance body	36				
	2-18 Evaluation of the performance of the highest governance body	36 - 37				
	2-19 Remuneration policies	35				
	2-20 Process to determine remuneration	35				
	2-21 Annual total compensation ratio		Requirement A, B, C under 2-21	Confidential		

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	2-22 Statement on sustainable development strategy	4-6				
	2-23 Policy commitments	42-44				
	2-24 Embedding policy commitments	48-49				
	2-25 Processes to remediate negative impacts	56-59				
	2-26 Mechanisms for seeking advice and raising concerns	57-60				
	2-27 Compliance with laws and regulations	60				
	2-28 Membership associations	38				
	2-29 Approach to stakeholder engagement	52-56				
	2-30 Collective bargaining agreements	56-1 One Report 2023: Page 98				
Material topics						
GRI 3: Material Topics 2021	3-1 Process to determine material topics	60-62	A orange cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available.			
	3-2 List of material topics	62				
Economic performance						
GRI 3: Material Topics 2021	3-3 Management of material topics	100-102				
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	103				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	201-2 Financial implications and other risks and opportunities due to climate change	66-72				
	201-3 Defined benefit plan obligations and other retirement plans	103				
	201-4 Financial assistance received from government	103-104				
Indirect economic impacts						
GRI 3: Material Topics 2021	3-3 Management of material topics	100-102				
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	101-102				
	203-2 Significant indirect economic impacts	101-102				
Anti-corruption						
GRI 3: Material Topics 2021	3-3 Management of material topics	111				
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	112				
	205-2 Communication and training about anti-corruption policies and procedures	113-114				
	205-3 Confirmed incidents of corruption and actions taken	113				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
Procurement Practice						
GRI 3: Material Topics 2021	3-3 Management of material topics	114-117				
GRI204 Procurement Practice 2016	204-1 Procurement Practice	117				
Research and Development						
GRI 3: Material Topics 2021	3-3 Management of material topics	104-105				
Research and Development	Former EU8 Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development	105				
Innovation Technology and Services						
GRI 3: Material Topics 2021	3-3 Management of material topics	106-108				
System Efficiency						
GRI 3: Material Topics 2021	3-3 Management of material topics	108-110				
System Efficiency	EU11 Average Generation Efficiency of. Thermal Plants by the Energy Source and by Regulatory Regime	111				
Availability and Reliability						
GRI 3: Material Topics 2021	3-3 Management of material topics	108-110				
Energy						
GRI 3: Material Topics 2021	3-3 Management of material topics	76-77				
GRI 302: Energy 2016	302-1 Energy consumption within the organization	78				
	302-3 Energy intensity	78				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	302-4 Reduction of energy consumption	78				
Water and effluents						
GRI 3: Material Topics 2021	3-3 Management of material topics	79-80				
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	79				
	303-2 Management of water discharge-related impacts	79				
	303-3 Water withdrawal	80-81				
	303-4 Water discharge	81-82				
	303-5 Water consumption	82				
Emissions						
GRI 3: Material Topics 2021	3-3 Management of material topics	65-72				
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	75				
	305-2 Energy indirect (Scope 2) GHG emissions	75				
	305-3 Other indirect (Scope 3) GHG emissions	75				
	305-4 GHG emissions intensity	76				
	305-5 Reduction of GHG emissions	73-74				
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	74-75				
Waste						
GRI 3: Material Topics 2021	3-3 Management of material topics	83-84				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	83-84				
	306-2 Management of significant waste-related impacts	83-84				
	306-3 Waste generated	84				
	306-4 Waste diverted from disposal	84				
	306-5 Waste directed to disposal	84				
Occupational health and safety						
GRI 3: Material Topics 2021	3-3 Management of material topics	86-91				
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	87				
	403-2 Hazard identification, risk assessment, and incident investigation	87-88				
	403-3 Occupational health services	89-90				
	403-4 Worker participation, consultation, and communication on occupational health and safety	89				
	403-5 Worker training on occupational health and safety	90				
	403-6 Promotion of worker health	90				

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION			GRI SECTOR STANDARD REF. NO.
			REQUIREMENT(S) OMITTED	REASON	EXPLANATION	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	91				
	403-8 Workers covered by an occupational health and safety management system	91				
	403-9 Work-related injuries	92-93				
	403-10 Work-related ill health	94				
Local communities						
GRI 3: Material Topics 2021	3-3 Management of material topics	95-96				
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	95				
	413-2 Operations with significant actual and potential negative impacts on local communities	59				
Customer privacy						
GRI 3: Material Topics 2021	3-3 Management of material topics	122-123				
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	124-125				

Reader Survey Form

We kindly ask for your kind cooperation in responding to reader surveys by scanning QR Codes or sending this survey form back to TPI Polene Power Plc, at the address specified at the end of this report or by email to : chayutd@tpipolene.co.th / ooy@tpipolene.co.th

1. Personal information

Gender ○ Male ○ Female

Age ○ Under 30 years old ○ 30-50 years ○ over 50 years

Occupation, please specify .....

2. As a reader, please specify from which point of view you are reading:

○ Customer ○ Employee ○ Regulatory Authority ○ Educational Institutions/Research Agencies

○ General public ○ Entrepreneur ○ Public agency ○ Financial Institutions

○ Others, please specify.....

3. From what sources did you receive/read the Company's Sustainability Report?

○ www.tpipolene.co.th ○ Employees of TPI Polene Public Company Limited

○ Office/Plant/Subsidiary ○ Others, please specify.....

4. The purpose of reading this Sustainability Report:

○ To get to know the Company ○ To find out about the decision to use the Company's products/services.

○ To study projects that benefit society and environment. ○ To research and study sustainability practices.

○ Others, please specify .....

5. What is your opinion on the Company's Sustainability Report?

Completeness of the report covers the main issues that you are interested in:	○ High	○ Moderate	○ Low
Beauty of the design	○ High	○ Moderate	○ Low
Appeal of report content and presentation style	○ High	○ Moderate	○ Low
Content clarity, easiness to understand, not confusing	○ High	○ Moderate	○ Low
Satisfaction with the overall report	○ High	○ Moderate	○ Low

6. What part of the Sustainability Report interests you the most?

○ About TPI Polene ○ TPI Polene and its Sustainability ○ Environmental Impact Management

○ Community and Social Development ○ Business Operation under Good Corporate Governance

○ Responsibility for Products and Service Development ○ Management of Environmental Impacts

7. Do you think that the content of this Report fully contains all the topics of your interest?

○ Yes ○ No, more information is needed.

(Please specify the topics of your interest and you wish to contain in the Company's subsequent Sustainability Report)

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8. What additional aspects do you think that TPI Polene Power Public Company Limited should further develop or improve its sustainability operations?

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9. Comments or other additional suggestions for further development of TPI Polene Power

Public Company Limited's Sustainability Report.....

TPI Polene Power Public Company Limited would like to thank you for your kind cooperation. Information from your opinion survey on this Sustainability Report will be used to improve and develop the Company's Sustainability Report.

บริษัท ทีพีไอ โพลีน เพาเวอร์ จำกัด (มหาชน)
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Power Plants Business