



TPI Polene Power Public Company Limited

Task Force on Climate-Related Financial Disclosures
(TCFD/IFRS S2) 2025

ZERO CARBON
ZERO WASTE



WORLD CLIMATE ENVIRONMENT IMPROVEMENT

CLEAN AND GREEN ENERGY

Task Force on Climate-
Related Financial Disclosures
(TCFD/IFRS S2) 2025



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Introduction

TPI Polene Power Public Company Limited (TPIPP), a power producer and distributor, operates a portfolio consisting of waste-to-energy power plants, waste heat power plants, solar power plants, and a coal-fired power plant that is scheduled to be converted into a 100% waste-to-energy facility by early 2026. The Company is recognized as the largest waste disposal plant in Thailand and the ASEAN region, and holds the distinction of being the world's largest waste disposal facility located at a single site. The Company recognizes the crucial role of the electricity sector in addressing climate change and the agenda to limit the global temperature rise to no more than 1.5^oC, in accordance with the Paris Agreement. Consequently, the Company has identified climate management as a significant sustainability issue for the organization and has announced its long-term goals to achieve Carbon Neutrality by 2037 and Net Zero emissions by 2050 to demonstrate its commitment. Furthermore, the Company consistently discloses its operational performance and related projects to provide operational guidelines for all stakeholders.

In 2025, to enhance the disclosure of climate-related management information, the Company has adopted the Task Force on Climate-related Financial Disclosures : TCFD/ IFRS S2 with four main components: Governance, Strategy, Risk Management, and Metrics and Targets as a framework for disclosing climate management information. This will entail disclosure of the Company's governance information regarding 1) climate-related risks and opportunities, 2) information on the actual and potential impacts of climate-related risks and opportunities on business operations, 3) details about its financial

strategy and planning, 4) approaches employed to assess and manage climate-related risks, and 5) disclosures of indicators and targets used to assess and manage climate-related risks. The initiative significantly elevates the level of disclosure to stakeholders, providing them with insights into the Company's progress in climate management operations.

In addition, TPIPP has incorporated environmentally friendly technology factors into consideration for future investment projects, ensuring that climate management is seamlessly connected to Strategy Risk, Operational Risk, Financial Risk, Compliance Risk, and Environmental, Social, and Governance Risk (ESG Risk) in an efficient manner. The Company has also developed climate change strategies to address these risks and work towards the long-term goal of reducing greenhouse gas emissions.

The Company has also conducted scenario analysis as part of its transition and physical risk assessment process. It has evaluated the potential financial impact resulting from significant risks on the Company's business operations and has developed an operational plan to articulate its commitment and guidelines for achieving carbon neutrality. Furthermore, plans for climate change and greenhouse gas reduction have been prepared in alignment with the operations of the Nationally Determined Contributions (NDCs), with the objective of controlling the global average temperature to not increase by more than 2^oC, as stipulated by the International Energy Agency (IEA).

The Company is committed to consistently improving its operations related to climate change and data disclosure in compliance with the operating framework and international standards.



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Executive Summary



The Company has identified climate management as a significant sustainability issue for the organization and has announced its long-term goals to achieve Carbon Neutrality by 2037 and Net Zero emissions by 2050 to demonstrate its commitment.

In 2025, the Company has managed climate change, divided into four main components: Governance, Risk Management, Strategy, and Metrics and Targets, serving as a framework for disclosing climate management information.

The risk assessment found that physical risks, such as in the case of water shortages and floods, which are classified as fundamental risks at a moderate and low level, respectively. These do not constitute a concern for the Company, as the Company can continually assess the situation and has measures in place to address them.

Risks related to legal factors or regulations controlling greenhouse gas emissions through mechanisms such as collecting carbon taxes, utilizing a carbon tax as a tool to prevent trade through the Carbon Border Adjustment Mechanism (CBAM), and supporting the use of electric vehicles and clean energy, etc., pose high risks to the fossil fuel electricity generation business and a low to moderate risk to the supply chain. However, they concurrently are opportunities for the electricity generation business from low carbon (green) energy sources.

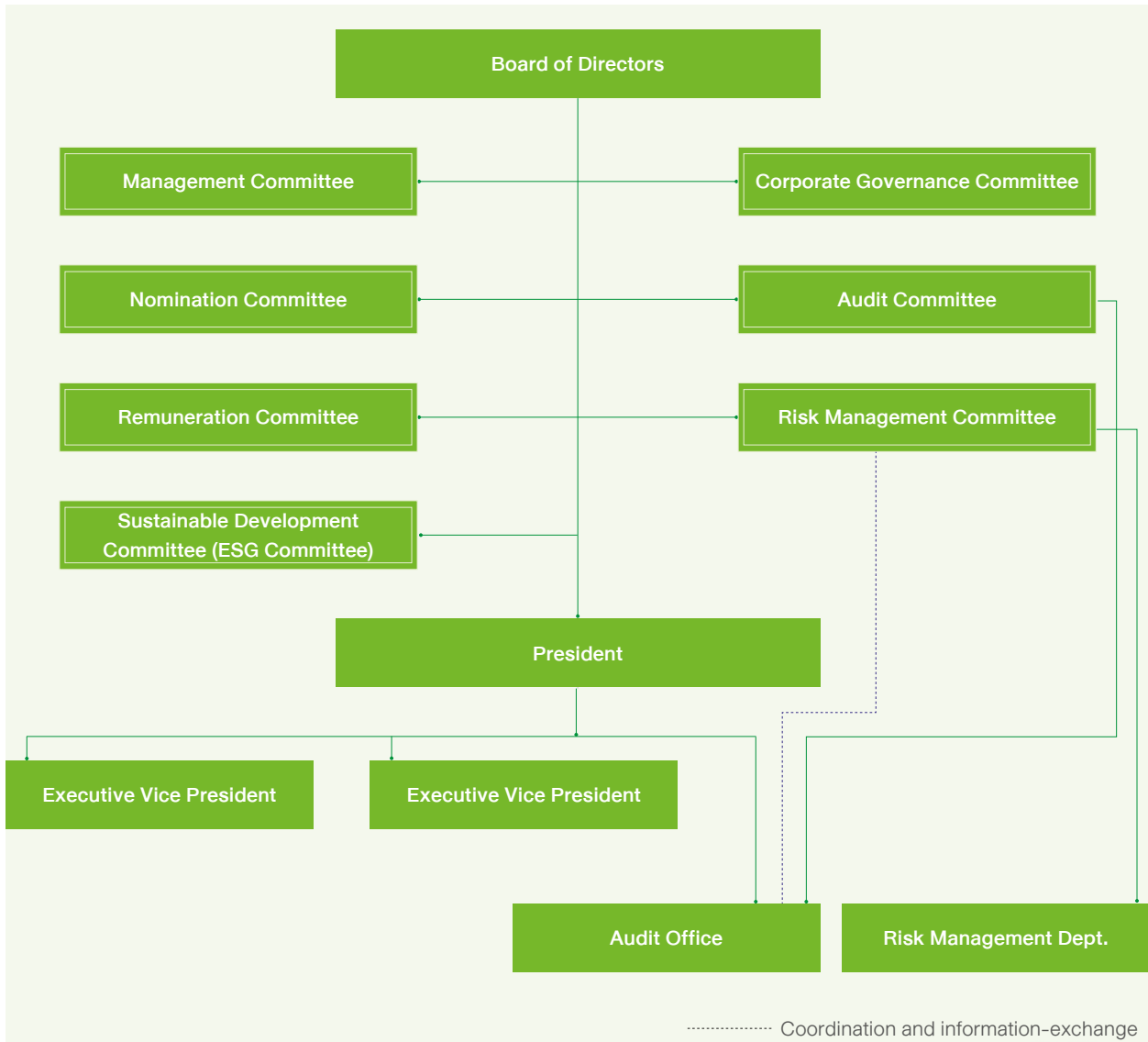
The Company has assessed such risks, leading to the necessity of allocating funds to adapt its technology for increased environmental friendliness. This involves utilizing waste as fuel instead of coal in the electricity generation process, as well as incorporating solar energy, wind energy, etc., into the energy production portfolio. A 100% Renewable Energy Power Plant is expected to attain REC certification. The Company employs low-carbon strategies to address climate change risks, enabling the achievement of its long-term goals related to the reduction of greenhouse gas emissions.

In addition to the aforementioned risks, there are also opportunities arising from the growth of electricity generation from renewable energy sources, which creates opportunities for the trading of Carbon Credits. This will create income opportunities for the Company. Societal demand will drive new businesses in infrastructure development and electricity charging to support the increasing number of electric cars. This aligns with the climate change strategy aiming towards a low-carbon society and promotes the development of Smart Grids and smart cities.

Governance

The Company recognizes the important role of the energy sector 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 corporate structure from the Board of Directors level to the operator level.

Corporate Governance Structure



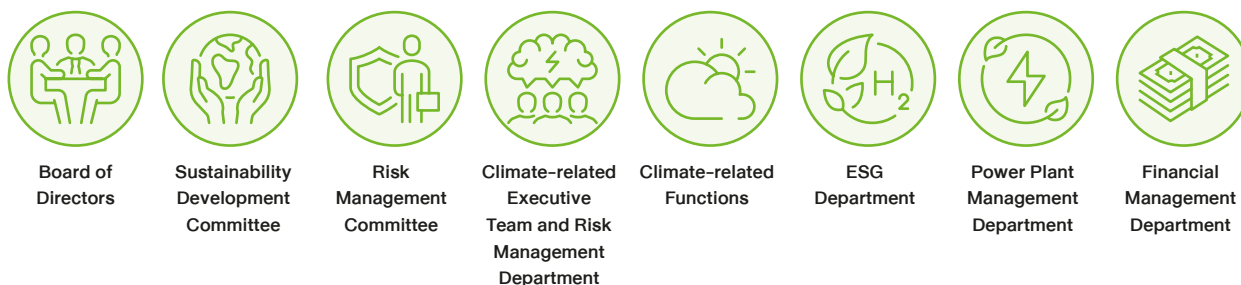
Mr. Pakkapol Leopairut, as a Director of the Company, is responsible for overseeing climate change strategy and risk management. He also monitors operational performance to achieve greenhouse gas (GHG) emission reduction targets and drives the organization toward becoming a sustainable low-carbon business.






TPIPP's Climate Change Governance



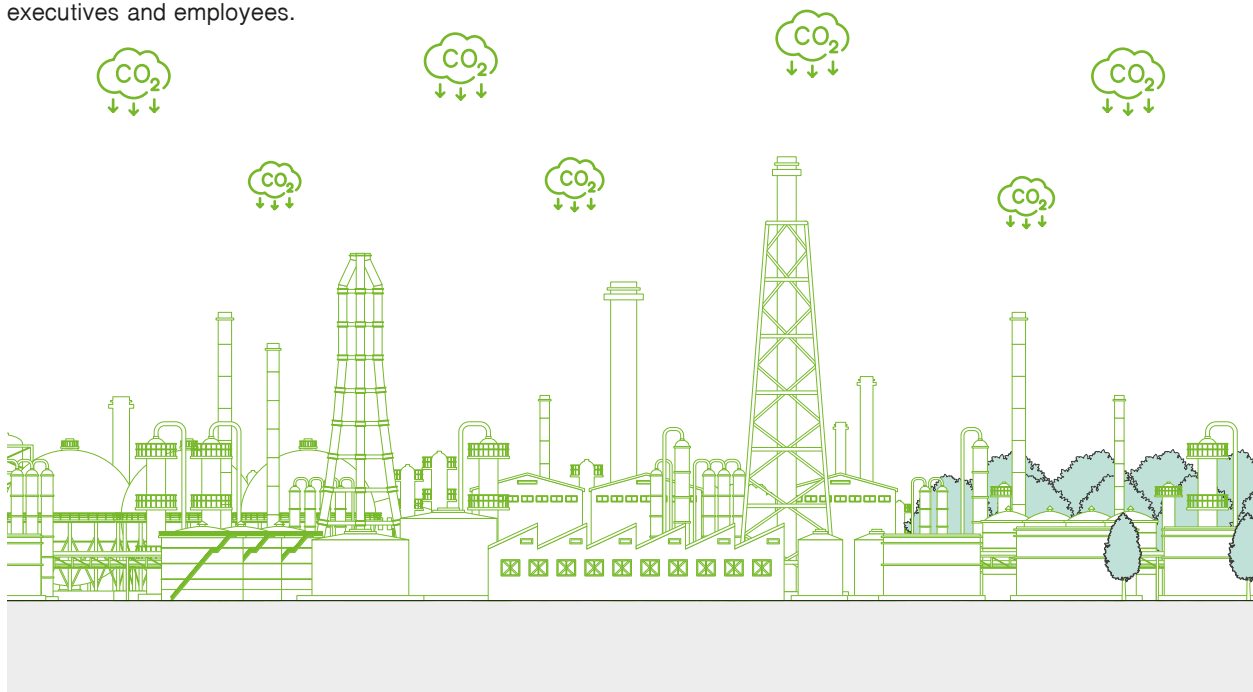
TPIPP's Climate Change Governance



Position	Roles and Responsibilities in Climate Change Risk Management and the Implementation of Climate Change Strategies	
 Board of Directors	<ul style="list-style-type: none"> To approve the climate change strategy, annual operational plan, goals, and Key Performance Indicators (KPIs) related to climate change. To oversee performance in accordance with climate change goals. To consider investments in clean energy businesses to align with the annual budget, short-term, and long-term strategic plans. To approve all strategies, operational plans, Key Performance Indicators (KPIs), and goals related to climate change to obtain approval from the Board of Directors. 	<p>At least once a year</p> <p>At least once a year</p> <p>At least once a year</p> <p>At least once a year</p>
 Sustainability Development Committee	<ul style="list-style-type: none"> To oversee the implementation of the climate change strategy and manage overall climate change risks and opportunities at the corporate level under the organization's ESG policy. To approve all strategies, policies, objectives, and annual action plans related to climate change in alignment with the organization's strategic plan, to seek for approval from the Board of Directors. 	<p>At least once a year</p> <p>At least once a year</p>
 Risk Management Committee	<ul style="list-style-type: none"> To assess organizational risks at least once a year, including risks and opportunities related to climate change, risk mitigation plans within the risk management systems and processes proposed by the Risk Management Department. To monitor performance, operational plans, Key Performance Indicators (KPIs), and goals related to climate change. 	<p>At least once a year</p> <p>At least once a year</p>
 Climate-related Executive Team and Risk Management Department	<ul style="list-style-type: none"> To integrate climate change risks and strategies into the Company's business strategies. To approve and monitor the implementation of the climate change strategy to align with business strategies, goals, and projects, and present them to the Board of Directors. To assign tasks to those responsible for implementing the climate change strategy and risk management. To integrate the assessment and management of climate change risks and opportunities into the organization's risk management systems and processes. 	<p>At least once a year</p> <p>At least once a year</p> <p>At least once a year</p> <p>At least once a year</p>
 Climate-related Functions	<ul style="list-style-type: none"> To coordinate with internal stakeholders on climate change issues. To be responsible for reporting and disclosing climate change information to external stakeholders. 	<p>At least once a year</p> <p>At least once a year</p>

Roles and Responsibilities in Climate Change Risk Management and the Implementation of Climate Change Strategies		
Position		
 ESG Department	<ul style="list-style-type: none"> To monitor greenhouse gas emissions, climate change risks, and operations related to low carbon projects in each operating area. 	Quarterly
	<ul style="list-style-type: none"> To evaluate the performance of the operating area at the management level and overall, and coordinate with internal stakeholders regarding physical risks and transition risks. 	Quarterly
 Power Plant Management Department	<ul style="list-style-type: none"> To supervise the operation of the power plant and report on greenhouse gas emissions and climate change risks at the power plant level. 	Quarterly
	<ul style="list-style-type: none"> To be responsible for the implementing of low carbon projects and managing climate change risks in operations. 	Quarterly
 Financial Management Department	<ul style="list-style-type: none"> To assess the financial impacts of climate change risks and opportunities. 	Quarterly
	<ul style="list-style-type: none"> To disclose information about climate-related financial in the Annual Registration Statement/Annual Report (Form 56-1 One Report) and the sustainability report. 	At least once a year
	<ul style="list-style-type: none"> To integrate climate change risks and opportunities into strategic business planning. 	At least once a year
	<ul style="list-style-type: none"> To integrate climate change strategies into the overall business strategy of the Company and identify business opportunities. 	At least once a year

The Company sets Key Performance Indicators (KPIs) and goals on climate change at the corporate level to drive the implementation of climate change at the executive level and within the organization. Additionally, the Company has established climate change goals as part of the Key Performance Indicators (KPIs) for executives each year. KPIs on energy management and climate change for each operating area have been determined to promote cooperation among executives and employees.



Risk Management and Climate Change

Management of climate change risks and opportunities

The Company has identified the management of risks and opportunities related to climate change as one of its main corporate goals. This involves the identification of important issues, as well as the assessment and management of risks and opportunities associated with climate change, following the steps outlined in the “Risk Management Manual.” In the electricity sector, it is a common practice to consider climate-related risks as part of operational risks (e.g., water shortages caused by severe climate impacts) and legal risks (e.g., carbon taxes). Therefore, the Company has tasked the Sustainability Development Committee and the Risk Management Committee, both of which fall under the Board of Directors, with the responsibility of regulating climate change. Additionally, specific key performance indicators (KPIs) have been outlined at the organizational level to measure performance towards climate change targets. This approach ensures that solutions to climate change problems are pursued with a serious and concrete commitment. It requires relevant departments to collaboratively integrate the organization’s risk assessment criteria for evaluating and monitoring climate-related risks and opportunities to meet the set goals. Additionally, the Company has established risk Key Performance Indicators (KPIs), comprising leading KPIs and risk management KPIs. It actively encourages employees to incorporate these risk-related KPIs into

their operations, offers monitoring and evaluation, and provides regular reports to the Board of Directors and sub-committees.

The Company has also implemented an integrated enterprise risk management approach based on the criteria of the Committee of Sponsoring Organizations of the Tread way Commission - Enterprise Risk Management (COSO-ERM). This approach focuses on fostering a culture that facilitates the integration of strategic planning and operational results into risk management. It recognizes the importance of including climate risks as part of the Company’s routine risk assessment process.

According to the Company’s risk management policy, the Risk Management Department is responsible for monitoring, evaluating, and reporting on the performance of risk management operations in various areas, including the organizational climate, to the Risk Management Committee. The Risk Management Committee will then devise plans and operations to mitigate risks based on the risk level and the probability of impacts on the organization’s income loss, business operation interruptions, and damage to reputation.

Company's Risk Management Process

- Identify risks related to climate change under operational and legal risks
- Identify physical and transition risks related to the business.
- Assess physical and transition risks through scenario analysis and data modeling on climate change.
- Assess the quantitative financial impact that may arise from climate change risks.



- Risks will be assessed according to the Company's risk management, taking into account climate change risks.
- Define risk identifiers for use in risk management.

- Development of mitigation measures and plans established under the Risk Oversight Committee.
- Actions to mitigate risks and increase physical and transition opportunities are considered in determining climate change strategies.

Scenario Analysis

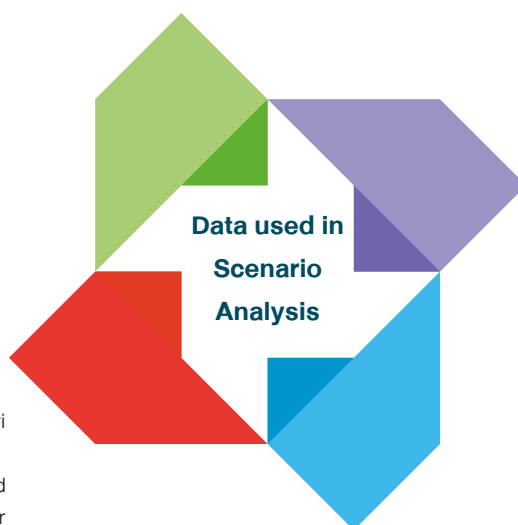
In 2025, TPIPP has broadened its focus to assess climate change risks and opportunities comprehensively. This expansion aims to identify, assess, and manage potential impacts more efficiently by reviewing and categorizing climate change risks in each relevant scenario. This encompasses both risks and 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.
- **IPCC 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:

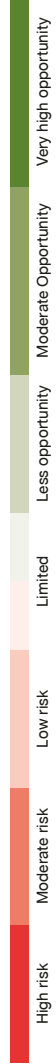
- **Stated Policies Scenario (STEPS):** The scenario assumes that the governments of all countries around the world can uphold their commitments to address the climate change issue and achieve net-zero greenhouse gas emissions within a specified timeframe. The global temperature is projected to increase 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.

Table : Results of Scenario Analysis on Transition and Impacts on the Company (Transition Risk and Transition Opportunity)

Factors driving the transition	Potential Impacts						Supporting Measures																																																																																																																
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<p>1. Laws or regulations aiming to control greenhouse gas emissions through various mechanisms, such as implementing carbon taxes, carbon taxes as a tool to regulate trade via the Carbon Border Adjustment Mechanism (CBAM), supporting the promotion of electric vehicles and clean energy, etc.</p>							<p>In cases where a country enforces stricter policies and laws to control greenhouse gas emissions, carbon tax measures have been implemented. These measures impact businesses involved in electricity generation from fossil fuels, from the supply chain to the producers.</p> <p>Operating costs will increase in proportion to the amount of greenhouse gas emissions.</p> <p>Assess the organization's greenhouse gas emissions to comply with policies and laws regulating emissions within the country and in the territories of trading partners, both currently determined and anticipated in the future. Operate in accordance with the carbon neutrality strategy to decrease emissions and mitigate potential impacts associated with greenhouse gas emissions.</p> <p>Produce electricity from 100% Renewable Energy Power plant (RE100)</p>																																																																																																																
<p>1. The Company has assessed the potential financial impacts, which may affect it as follows:</p> <table border="1"> <thead> <tr> <th></th> <th>2030</th> <th>2050</th> <th>2030</th> <th>2050</th> <th>2030</th> <th>2050</th> </tr> </thead> <tbody> <tr> <td>Carbon Price* (EUR/tonCO2)</td> <td>741.18</td> <td>4,211.25</td> <td>3,420.02</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Carbon Tax Cost (million THB)</td> <td>357,244.66</td> <td>1,520,324</td> <td>1,239,308</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Impact on Net Profit (%)</td> <td>-5.393%</td> <td>-28.662%</td> <td>-3.261%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> <tr> <td>REC (MW)</td> <td>1,400,000.00</td> <td>1,400,000.00</td> <td>1,724,319</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>REC Profit (million THB)</td> <td>305.59</td> <td>1,236.32</td> <td>1,401.72</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>REC Profit (million THB) (%)</td> <td>0.816%</td> <td>0.876%</td> <td>0.891%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> <tr> <td>Net Income (million THB)</td> <td>11,467.46</td> <td>6,738.00</td> <td>5,929.54</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Carbon Tax Cost (million THB) (%)</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> <tr> <td>Impact on Net Profit (%)</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> <tr> <td>REC (MW)</td> <td>1,400,000.00</td> <td>1,400,000.00</td> <td>1,647,02</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>REC Profit (million THB)</td> <td>317.34</td> <td>1,984.36</td> <td>1,647.02</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>REC Profit (million THB) (%)</td> <td>0.226%</td> <td>1.419%</td> <td>0.231%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> <tr> <td>Net Income (million THB)</td> <td>4,628.14</td> <td>5,781.94</td> <td>2,318.03</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Net Income (million THB) (%)</td> <td>3.292%</td> <td>4.321%</td> <td>2.318%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> <tr> <td>Net Impact on Net Profit (%)</td> <td>4.628%</td> <td>5.295%</td> <td>4.321%</td> <td>0.00%</td> <td>0.00%</td> <td>0.00%</td> </tr> </tbody> </table>		2030	2050	2030	2050	2030	2050	Carbon Price* (EUR/tonCO2)	741.18	4,211.25	3,420.02	0.00	0.00	0.00	Carbon Tax Cost (million THB)	357,244.66	1,520,324	1,239,308	0.00	0.00	0.00	Impact on Net Profit (%)	-5.393%	-28.662%	-3.261%	0.00%	0.00%	0.00%	REC (MW)	1,400,000.00	1,400,000.00	1,724,319	0.00	0.00	0.00	REC Profit (million THB)	305.59	1,236.32	1,401.72	0.00	0.00	0.00	REC Profit (million THB) (%)	0.816%	0.876%	0.891%	0.00%	0.00%	0.00%	Net Income (million THB)	11,467.46	6,738.00	5,929.54	0.00	0.00	0.00	Carbon Tax Cost (million THB) (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	Impact on Net Profit (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	REC (MW)	1,400,000.00	1,400,000.00	1,647,02	0.00	0.00	0.00	REC Profit (million THB)	317.34	1,984.36	1,647.02	0.00	0.00	0.00	REC Profit (million THB) (%)	0.226%	1.419%	0.231%	0.00%	0.00%	0.00%	Net Income (million THB)	4,628.14	5,781.94	2,318.03	0.00	0.00	0.00	Net Income (million THB) (%)	3.292%	4.321%	2.318%	0.00%	0.00%	0.00%	Net Impact on Net Profit (%)	4.628%	5.295%	4.321%	0.00%	0.00%	0.00%							<p>1. Increased operating costs of the Company</p> <p>2. Increasing the investment in enhancing machine performance for transitioning to environmentally friendly technology, thereby reducing reliance on fossil fuels. This involves the adoption of alternative fuels and a shift towards utilizing alternative energy sources in lieu of traditional fossil fuels.</p> <p>3. Increased operating costs of the Company</p>
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2. Growth in electricity generation from renewable energy sources (opportunity), increased income due to the rising demand for electricity from renewable energy sources	<p>The Company will have an opportunity to increase income from selling electricity from renewable energy sources as follows:</p> <table border="1"> <thead> <tr> <th></th> <th>2030</th> <th>2050</th> <th>SITPs</th> <th>SUS/IZE</th> <th>Difference</th> </tr> </thead> <tbody> <tr> <td>2030 (medium term)</td> <td></td> <td></td> <td>38%</td> <td>57%</td> <td>19%</td> </tr> <tr> <td>*Renewable share electricity generation</td> <td></td> <td></td> <td>13,013.91</td> <td>18,898.56</td> <td>646.72</td> </tr> <tr> <td>Revenue (million THB)</td> <td></td> <td></td> <td>6.17%</td> <td>11.68%</td> <td>5.51%</td> </tr> <tr> <td>2050 (long term)</td> <td></td> <td></td> <td>55%</td> <td>86%</td> <td>31%</td> </tr> <tr> <td>*Renewable share electricity generation</td> <td></td> <td></td> <td>34,892.94</td> <td>51,697.92</td> <td>14675.62</td> </tr> <tr> <td>Revenue (million THB)</td> <td></td> <td></td> <td>192.31%</td> <td>317.29%</td> <td>124.98%</td> </tr> </tbody> </table>							2030	2050	SITPs	SUS/IZE	Difference	2030 (medium term)			38%	57%	19%	*Renewable share electricity generation			13,013.91	18,898.56	646.72	Revenue (million THB)			6.17%	11.68%	5.51%	2050 (long term)			55%	86%	31%	*Renewable share electricity generation			34,892.94	51,697.92	14675.62	Revenue (million THB)			192.31%	317.29%	124.98%	<p>Energy demand is likely to rise, with forecasts indicating an increase in electricity generation from both fossil fuels and renewable energy sources in the short term.</p> <p>solar energy and wind energy at the national level, particularly in areas where investment is planned.</p> <p>Integrate the strategy of greenhouse gas emissions reduction and increase production capacity of electricity from renewable energy, including solar energy and wind energy at the national level, particularly in areas where investment is planned.</p>	<p>Under the SDS scenario, the highest potential financial impact arises from the assumption that production capacity and renewable energy demand increase without limits, contingent on the growth in electricity demand.</p> <p>Drive new business in infrastructure development and charging to support the increasing demand for electric vehicle consumption, responding to the strategy of climate change. This aims to increase income from low carbon business and promote Smart Grid and smart cities.</p> <p>The Company registers a renewable energy power plant with the responsible electricity authority to issue RECs certificates.</p>
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Factors driving the transition	Potential Impacts							Impacts on TIIPP	Supporting Measures
	Financial Impacts								
	Production of electricity from fossil fuels	Production of electricity from green energy sources		Supply Chain					
		2030	2050	2030	2050	2030	2050		
3. Returns from investments in technology that emit low greenhouse gases (opportunity) are driven by the changing behavior of consumers and entrepreneurs toward the low-carbon economy trend. There is an increasing emphasis on environmentally friendly products. Consequently, the Company can create new market opportunities, such as carbon markets, REC rights trading, etc.								<p>The Company can offset costs and investments resulting from climate change control situations with the returns on investment and the opportunities provided by such activities.</p> <p>Investments and technology development, such as energy storage systems, can help reduce costs and promote the use of electricity from renewable energy sources.</p> <p>The Company can offset costs and investments resulting from climate change control situations with the returns on investment and the opportunities provided by such activities.</p> <p>Investments and technology development, such as energy storage systems, can help reduce costs and promote the use of electricity from renewable energy sources.</p> <p>Increase the carbon credits obtained from the project that produces MSW fuel from municipal solid waste.</p> <p>Increase investments in renewable energy power plant projects, including wind and solar.</p> <p>Increase the Renewable Energy Certificate (REC) yield by utilizing renewable energy for electricity generation.</p>	



Table : Transition Risk Implications

		STEPS	SDS/NZE	Difference
2030 (medium-term)				
Transition Risk	Carbon Tax Cost (million THB)	264.66	1,503.74	1,239.08
	Impact on Net Profit (%)	-5.39%	-28.66%	-23.3%
Opportunity	REC Profit (million THB)	305.59	1,736.32	1,430.73
	Impact on Net Profit (%)	6.22%	33.09%	26.9%
Net Impact on Net Profit (%)		0.83%	4.43%	3.59%
2050 (long-term)				
Transition Risk	Carbon Tax Cost (million THB)	-	-	0.00
	Impact on Net Profit (%)	-	-	-
Opportunity	REC Profit (million THB)	472.28	2,778.11	2,305.83
	Impact on Net Profit (%)	9.62%	52.95%	43.32%
Net Impact on Net Profit (%)		9.62%	52.95%	43.32%

Table : Opportunity Implications (Renewable Power)

		STEPS	SDS/NZE	Difference
2030 (medium-term)				
*Renewable Share electricity generation		38%	57%	19%
Revenue (million THB)		13,013.91	18,858.56	646.77
Impact on Revenue (%)		6.17%	11.68%	5.51%
2050 (long-term)				
*Renewable Share electricity generation		55%	86%	31%
Revenue (million THB)		34,982.94	51,957.92	14,675.62
Impact on Revenue (%)		192.31%	317.29%	124.98%

Table: Results of Physical Risk Scenario Analysis and Impacts on the Company (Physical Risk)

Projected Trends of Physical Climate Risks for Saraburi Province, Thailand

Projected Changes under the RCP 2.6 and RCP 8.5 Scenarios in 2030 and 2050 (Projects commencing from 2025)

Physical risks	Indicators	ThinkHazard	Climate Change Knowledge Portal For Development Practitioners and Policy Makers			
			RCP 2.6		RCP 8.5	
		BSL	2030	2050	2030	2050
Water scarcity	Change in water stress [Drought Index]		0.04	0.02	0.11	0.45
River flood	Change in 5-Day Cumulative Precipitation [%]		-2.55%	2.66%	-2.10%	0.40%
Extreme heat	Change in Maximum Surface Air Temperature [°C]		-0.01	0.83	0.23	1.15

Baseline Hazard Level	Predicted Hazard Levels	Water scarcity		River flood		Extreme heat	
		Change in water stress [Drought Index]	Change in water stress [Drought Index]	Change in 5-Day Cumulative Precipitation [%]	Change in Maximum Surface Air Temperature [°C]		
High	Significant increase	<-1	<-1	>10%	>2 °C		
Medium	Moderate increase	<-0.5	<-0.5	>5%	>1 °C		
Low	Slight increase	<0	<0	>0%	>0 °C		
Very Low	Equivalent to normal standards	0	0	0%	= 0 °C		
Not present	Slight decrease	>0	>0	<0%	<0 °C		
	Moderate decrease	>0.5	>0.5	<-5%	<-1 °C		
	Significant decrease	>1	>1	<-10%	<-2 °C		

Risk Assessment

The physical risk assessment includes the power plants and the 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 Hazard 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

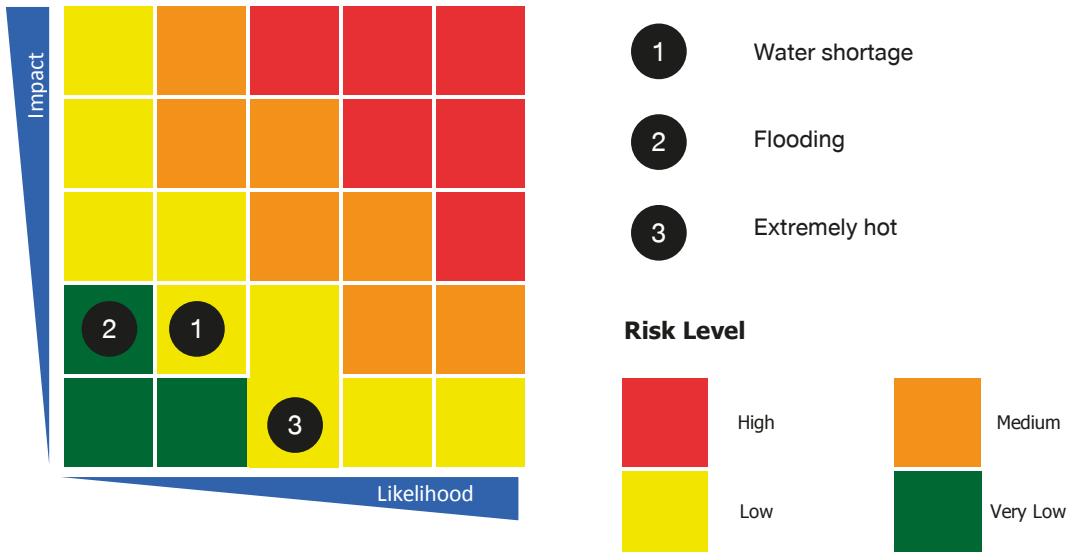



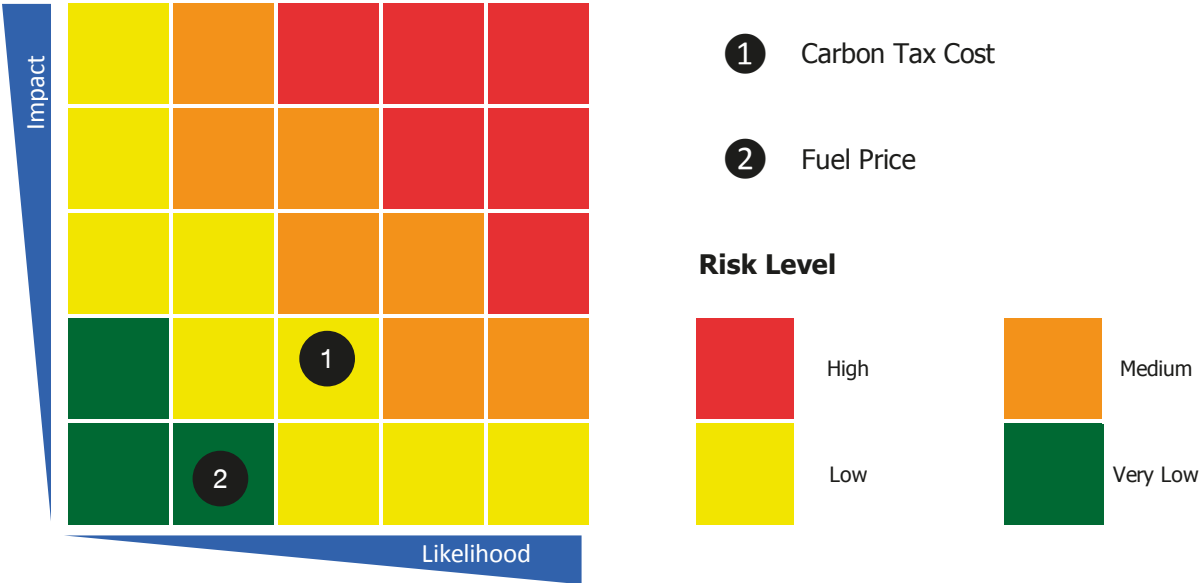


Table : Physical Risk Supporting Measures

Physical Risk	Impact on Business Operations	Supporting Measures
<p>1. Water scarcity</p> 	<p>In the production process, due to the drought crisis, when assessing hazard 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 Hazard 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.</p>	<ol style="list-style-type: none"> Continuously monitor the news and assess the drought situation to align with the reserved water levels. Regularly measure the water level in the factory's reservoir to assess its adequacy for use. Enhance water use efficiency in the production process by recycling water and refraining from releasing used water. The Company assessed water stress in the power plant area using the Aqueduct tool and identified it in the Medium-High range (20-40%). According to the definition, this doesn't qualify as an area with significant water stress.
<p>2. River flood</p> 	<p>When assessing the hazard levels in 2030 and 2050 under both RCP 2.6 and RCP 8.5 scenarios, it was found that the hazard level will slightly increase only in 2050. Although the Baseline Hazard Level is low, some of the fuel suppliers are located in flood-prone areas. Therefore, there is a possibility of delays in fuel delivery by suppliers to the Company, which could impact the electricity generation process.</p>	<ol style="list-style-type: none"> Monitor the news and assess weather forecasts to prepare for fuel reserves delivered from suppliers before flooding occurs, thereby minimizing the impact on the electricity generation process.
<p>3. Extreme heat</p> 	<p>In the production process, during periods of extreme heat, the hazard levels for 2030 and 2050 vary depending on the scenario. Under the RCP2.6 scenario, the danger decreases slightly. However, under the RCP8.5 scenario, the danger increases slightly in 2030 and moderately in 2050. Given that the Baseline Hazard Level is moderate, this could result in heat-related illnesses, directly impacting employee health.</p>	<ol style="list-style-type: none"> Monitor the news and assess changes in air temperatures while coordinating with the Saraburi Provincial Public Health Office to develop management guidelines for heat-related illnesses. Focus on public education, raising awareness, treating heat-related conditions, and providing care for at-risk groups.

Potential impacts arising from climate change-related risks and associated opportunities across various dimensions are as follows :

Impacts from Climate Change-Related Risks (Transition Risk Prioritization)



Impacts from Climate Change-Related Opportunities (Transition Opportunity Prioritization)

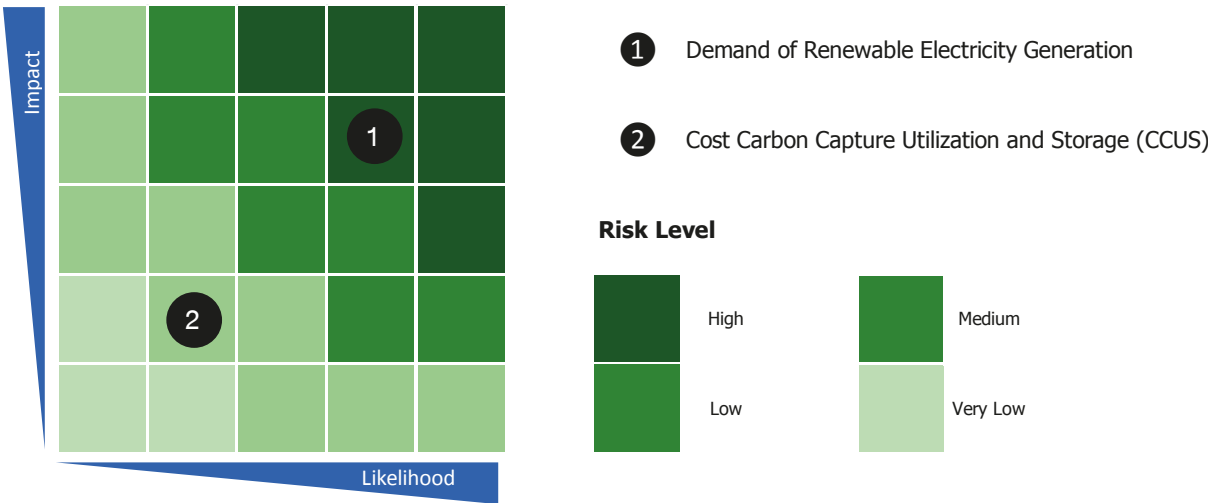


Table : Impacts potentially caused by risks and opportunities related to climate change in various areas are as follows :

Opportunities and risks from climate change			Impacts	Supporting Measures
Short Term (1–5 Years)	Medium Term (5–10 Years)	Long term (>10 Years)		
1. Carbon Tax Price (Risk)			The Company's operating expenses will increase in proportion to the amount of greenhouse gas emissions.	<ol style="list-style-type: none"> 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. 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 will increase 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 high.	<p>Study Carbon Capture, Utilization and Storage (CCUS) technology.</p> <p>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.</p>

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 emissions and consist of six main areas, as follows :

<p>Increase in production efficiency (greenhouse gas emission reduction)</p> <p>Applying TPM (Total Productive Maintenance) system in electricity production to reduce the occurrence of breakdowns.</p>		
<p>Increase in municipal solid waste collection to boost the production of</p> <p>Increasing the amount of carbon credits by producing MSW (Municipal Solid Waste) from municipal waste instead of releasing greenhouse gases from landfills.</p>		<p>Reduction of electricity production from the use of fossil fuels</p> <p>Reducing the use of fossil fuels in electricity generation.</p>
<p>Increase in forest planting areas</p> <p>Increase in forest planting areas to absorb greenhouse gases in the atmosphere</p>		<p>Increase in investments in electricity production from renewable energy</p> <p>Increase in electricity production from renewable energy, including energy from MSW (Municipal Solid Waste) fuel, solar energy, and wind energy.</p>
		<p>Carbon offset and trading</p> <p>Applying for Renewable Energy Certificates (RECs) / Purchasing carbon credits</p>

The Company is committed to achieving carbon neutrality by 2037 and reaching Net Zero emissions by 2050 through its business operations. This commitment is supported by development and investment plans in production infrastructure, product research and development, and the creation of new innovations, as follows :

Phase 1: Short-Term (2020-2030): Transition to a Low-Carbon Society: This phase focuses on reducing Scope 1 and Scope 2 greenhouse gas emissions by 63% by 2030, compared with 2020, the base year. The Company aims to increase the use of renewable and clean energy to replace fossil fuels, while expanding the proportion of electricity generation from clean energy sources, such as increasing electricity production from solar energy.

The Company will reduce Scope 1 and Scope 3 greenhouse gas emissions, particularly Category 3: Fuel- and energy-related activities and Category 4: Upstream transport and distribution, by replacing combustion-engine machinery with electric-powered equipment, such as using conveyor belt systems instead of trucks. In cases where trucks are still required for transportation, the Company will transition to electric vehicles (EVs). In addition, the Company will increase

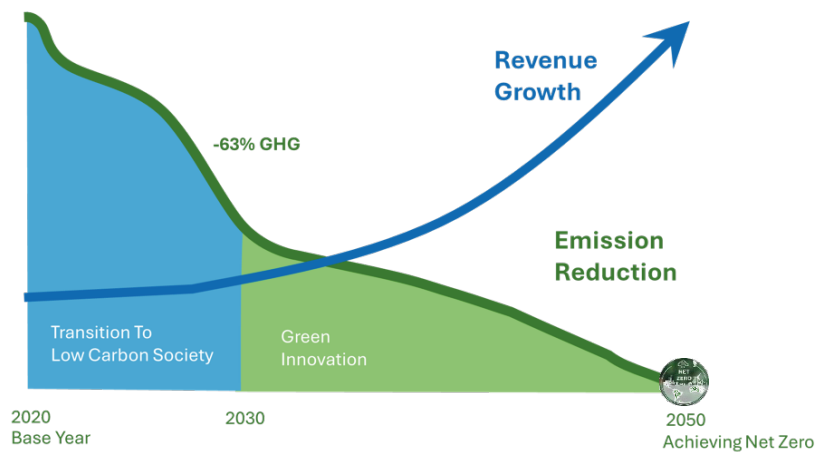
the proportion of alternative fuels in electricity generation, such as using municipal waste as fuel instead of coal, while also increasing the use of municipal waste for alternative fuel production in order to generate more carbon credits to offset greenhouse gas emissions.

The Company will reduce Scope 2 greenhouse gas emissions to zero by implementing proactive maintenance of machinery to minimize breakdowns in electricity generation, thereby reducing the use of electricity from the Provincial Electricity Authority (PEA).

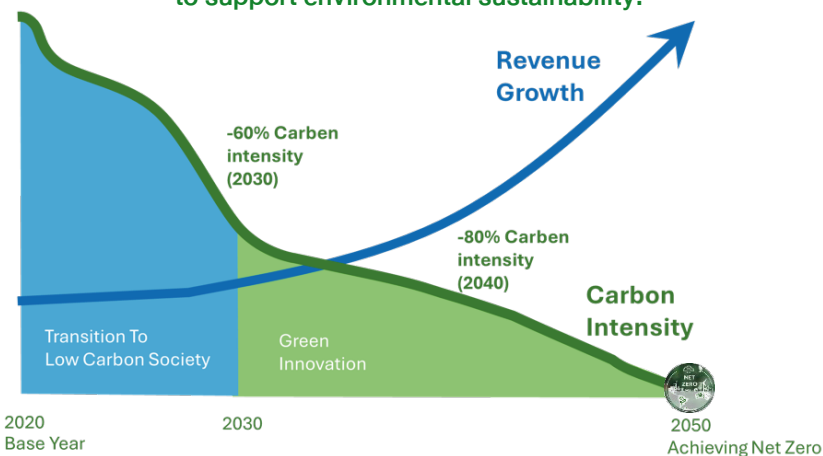
Phase 2: Medium-Term (2031-2049): Focusing on the adoption of Green Innovation: This phase focuses on the investments in innovation and research to identify advanced technologies (Deep Tech) to support the transition toward Net Zero, such as Carbon Capture, Utilization and Storage (CCUS) and hydrogen technologies, in order to reduce Scope 1 greenhouse gas emissions. The Company will also expand the use of clean energy and renewable energy systems, as well as increase reforestation activities to generate carbon credits for offsetting greenhouse gas emissions. These initiatives aim to prepare the Company to achieve carbon neutrality and become a sustainable industry for the future.

Phase 3: Long-Term (2050): Achieving Net Zero greenhouse gas emissions: This means that the Company will have fully transitioned its production technologies and supply chain systems to green processes. The adoption of clean, flexible, and competitive technologies will strengthen the business and production systems, including negative carbon processes, such as bio-based production processes that result in negative carbon emissions (fuels or raw materials capable of capturing carbon). In addition, Carbon Capture, Utilization, and Storage (CCUS) will play a critical role in enabling the Company to achieve its Net Zero target.

TPIPP has set an operational target to achieve Net Zero by 2050.



TPIPP focuses on developing alternative fuel production processes and low-carbon electricity generation to support environmental sustainability.



TIIPP's GHG Reduction Strategies

2022

- Phase up of Renewable power plants
- Phase down of coal power plants
- 48% share of RE electricity

2025

- Solar Farm / Wind Turbine
- Phase Out of coal power plants
- 100% share of RE electricity



2030

- Solar Farm / Wind Turbine
- Afforestation

2027

- Efficiency improvement in power plants
- Increase MSW to Produce RDF for power plants



2034

- CCUS

2037

- TIIPP's Carbon Neutrality

2050

- TIIPP's Net ZERO



Metrics and Targets

Climate-related indicators

Table : Greenhouse Gas Emissions Data

	Unit	2023	2024	2025*
Scope 1 (Direct)	TonCO ₂ e	1,561,295.61	1,780,875.71	1,641,922.75
Scope 2 (Indirect)	TonCO ₂ e	12,365.10	14,982.97	13,412.18
Scope 3	TonCO ₂ e	115,136.05	118,255.92	73,151.51
Total	TonCO₂e	1,688,796.76	1,914,114.60	1,728,486.44

Note * The Company's greenhouse gas emissions data were verified for all power plants that were already in operation in 2025 by British Standards Institution (BSI), an independent external organization, in accordance with ISO 14064-1:2018 and the CFO-TGO guidelines. The Operational Control approach was applied to consolidate greenhouse gas emissions data from all power plants under the Company's operational control. Fuel and energy consumption data were collected from each generation station and calculated in accordance with the GHG Protocol.

Table : Scope 3 Emissions

GHG Emissions Data	Unit	2023	2024	2025
Category 1: Purchased goods and services	TonCO ₂ e	823.78	812.85	1,072.74
Category 2: Capital goods	TonCO ₂ e	N/A	N/A	N/A
Category 3: Fuel- and energy-related activities (not included in Scope 1 or 2)	TonCO ₂ e	72,443.78	83,174.16	71,711.10
Category 4: Upstream transport and distribution	TonCO ₂ e	41,585.59	34,078.06	0
Category 5: Waste generated	TonCO ₂ e	N/A	N/A	N/A
Category 6: Business travel	TonCO ₂ e	N/A	N/A	N/A
Category 7: Employee commuting	TonCO ₂ e	N/A	N/A	N/A
Category 8: Upstream leased assets	TonCO ₂ e	N/A	N/A	N/A
Category 9: Downstream transport and distribution	TonCO ₂ e	282.91	190.84	367.67
Category 10: Processing of sold products	TonCO ₂ e	N/A	N/A	N/A
Category 11: Use of sold products	TonCO ₂ e	N/A	N/A	N/A
Category 12: End-of-life treatment of sold products	TonCO ₂ e	N/A	N/A	N/A
Category 13: Downstream leased assets	TonCO ₂ e	N/A	N/A	N/A
Category 14: Franchises	TonCO ₂ e	N/A	N/A	N/A
Category 15: Investments	TonCO ₂ e	N/A	N/A	N/A
Total Scope 3 GHG emissions	TonCO₂e	115,136.05	118,255.92	73,151.51

Table : Emission levels of sulfur dioxide (SO₂) and nitrogen oxides (NO_x) of the Company compared with World Bank's Emissions Standards and requirements under Thai legal regulations

Unit: mg/m³ normal

	Sulfur dioxide (SO ₂)	Nitrogen oxides (NO _x)
TPIPP	30	120
World Bank's Emissions Standards	< 230	< 510
Requirements under Thai legal regulations	< 320	< 350

Table : GHG emission intensity of power plants

Unit: tons

Activity	Unit	2023	2024	2025
Greenhouse Gas GHG (1)	TonCO ₂ e	1,688,796.76	1,914,114.60	1,728,486.44
Non greenhouse gases pollution (2)	Ton	1,393	1,356	1,473
Power generating unit (3)	MWh	2,239,827.73	2,425,337.30	2,718,651.57
Proportion (1)/(3)	TonCO ₂ e / MWh	0.7540	0.7892	0.6358
Proportion (2)/(3)	Ton / MWh	0.000622	0.000559	0.000542

Note : - Verified by the British Standards Institution (BSI), an independent third party, in accordance with ISO 14064-1:2018 and TGO's CFO guidelines.

- Non-greenhouse gases include SO_x and NO_x

- Data collection covers all power plants of TPI Polene Power Public Company Limited that were in operation for business activities in 2025.

Table : Implementation of Short-term and Long-term Climate Change Management Strategies and Targets

Strategy	Performance in 2025	Targets in 2026	Targets in 2037
1. To establish the proportion of fuel for electricity generation	<ul style="list-style-type: none"> Total production capacity is 506.90 megawatts. Proportion of fossil fuels is 29.59%. Proportion of renewable energy is 70.41%. 	<ul style="list-style-type: none"> Total production capacity is 506.90 megawatts. Proportion of fossil fuels is 0%. Proportion of renewable energy is 100% 	<ul style="list-style-type: none"> 2,205 megawatts. Proportion of fossil fuels is 0 %. Proportion of renewable energy is 100%
2. To reduce the amount of greenhouse gases	<ul style="list-style-type: none"> The amount of greenhouse gas emissions is reduced by 1,728,486.44 TonCO₂e, accounting for 54.39% compared to the base year of 2020. Scope 1 greenhouse gas emissions: 1,641,922.75 TonCO₂e Scope 2 greenhouse gas emissions: 13,412.18 TonCO₂e Scope 3 greenhouse gas emissions: 73,151.51 TonCO₂e The amount of greenhouse gases per unit of electricity generated is decreased by 58.03% compared to the base year of 2020. 	<ul style="list-style-type: none"> The amount of greenhouse gas emissions is reduced by 1,632,750 TonCO₂e, accounting for 56.92% compared to the base year of 2020. Scope 1 greenhouse gas emissions: less than 1,550,000 TonCO₂e Scope 2 greenhouse gas emissions: less than 12,750 TonCO₂e Scope 3 greenhouse gas emissions: less than 70,000 TonCO₂e The amount of greenhouse gases per unit of electricity generated is decreased by 60% compared to the base year of 2020. 	<ul style="list-style-type: none"> Zero greenhouse gas emissions TonCO₂e The amount of greenhouse gases per unit of electricity produced is equal to 0 TonCO₂e /MWh.
3. To increase the collection municipal waste(MSW) to produce waste-based fuel	<ul style="list-style-type: none"> Collecting 3.40 mill. tons of municipal waste (MSW) to manufacture waste-based fuel production. 	<ul style="list-style-type: none"> Collecting at least 4.80 mill. tons of municipal waste (MSW) per year to manufacture waste-based fuel production. 	<ul style="list-style-type: none"> Collecting at least 5.44 mill. tons of municipal waste(MSW) per year to manufacture waste-based fuel production.

Strategy	Performance in 2025	Targets in 2026	Targets in 2037
3.1 Reduce the amount of greenhouse gas emissions from landfills by at least 6.2 million TonCO ₂ e per year (1 ton of community waste emits CO ₂ equal to 2.32 tons/year).	<ul style="list-style-type: none"> Process approximately 3.40 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 7.89 million TonCO₂e. 		
3.2 Receive additional Carbon Credit of at least 180,000 TonCO ₂ e per year.	<ul style="list-style-type: none"> In 2025, the Company received carbon credit registration and certification from the Thailand Greenhouse Gas Management Organization (TGO), totaling 2,022,585 TonCO₂e. 	<ul style="list-style-type: none"> The Company received an additional Carbon Credit of at least 300,000 TonCO₂e per year. 	<ul style="list-style-type: none"> Receive an additional Carbon Credit of at least 500,000 TonCO₂e per year.
4. To increase greenhouse gas storage by planting forests and applying CCUS	<ul style="list-style-type: none"> The amount of greenhouse gas stored is 2,022,585 TonCO₂e. 	<ul style="list-style-type: none"> The amount of greenhouse gas stored is 2,423,994 TonCO₂e 	<ul style="list-style-type: none"> The amount of greenhouse gas stored is 3,546,758 TonCO₂e
5. To apply for Renewable Energy Certificate (REC)	<ul style="list-style-type: none"> To apply for Renewable Energy Certificate (REC) for 3,868,891.41 RECs. 	<ul style="list-style-type: none"> To apply for Renewable Energy Certificate (REC) for 1,400,000 RECs/year 	<ul style="list-style-type: none"> To apply for Renewable Energy Certificate (REC) for 1,600,000 RECs/year.
6. To disclose information	<ul style="list-style-type: none"> Sustainability Report according to GRI Standard and 56-1 One Report 	<ul style="list-style-type: none"> Sustainability Report according to GRI Standard and 56-1 One Report Participating in the sustainability assessment of organization both domestically and internationally 	<ul style="list-style-type: none"> Sustainability Report according to GRI Standard, 56-1 One Report or as related reports. Carbon Disclosure Project (CDP) Participating in organizational sustainability assessments both domestically and internationally






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