Climate Risk and Adaption

The climate change situation has intensified and affected many continents of the world, which is partly a result of greenhouse gas emissions from human activities. Many countries have turned their attention and are aware of the disaster, which can reduce the severity of climate change by collaborating to reduce greenhouse gas emissions.

According to one of the Task Force on Climate-related Financial Disclosures (TCFD)'s key recommended disclosures focuses on the resilience of an organization's strategy, taking into consideration different climate-related scenarios, including a 2° Celsius or lower scenario. Therefore, the Company has set up process to assessed both physical risks and transition risks associated with climate change using the RCP 2.6 and IEA 2DS climate-related scenarios, respectively.

Climate Change Risk and Opportunity Assessment

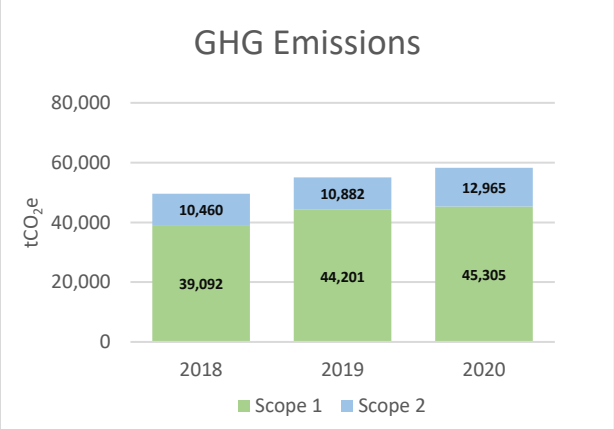
Risk/Opportunity	Risk Impact/Opportunity	Risk/Opportunity Management
Risk: Uncontrollable of climate change relating to solar cell business such as plant irradiation etc.	Production target (revenue impact) of solar cell power business	1) Closely monitor operation target and plant irradiation as well as keep record daily power production compare against plant irradiation daily basis.
Risk: Uncontrollable of climate change relating to wind business such as wind speed etc.	Production target (revenue impact) of wind power business	1) Closely monitor operation target and wind speed as well as keep record daily power production compare against wind speed daily basis.
Risk: Physical changes of climate (e.g. wind, storm, flood, etc.)	Business interruption Estimated financial implication of the risk before taking action: 488 million baht.	1) Study on feasibility of investment by choosing the plant location that is least vulnerable to climate change. There is a comprehensive plan to prevent the high impacts of future climate change risks.
	Impact on the Company's assets (damage on machine and equipment Estimated financial implication of the risk before taking action: 2,998 million baht	2) Storm: (ESL Plant): Install wind speed device in 3 locations to detect the wind speed as well as set the wind speed rate at 15 (m/s) in order to sending a signal to the sensor to put the tracker is in sleep mode and help to reduce the damage of the PV panel from the storm. 3) ESL Plant: Construction of windbreak wall 4) Wind Power Business: Install the sensor to adjust the turbine when the wind speed reaches a certain point that is expected to pose a danger to turbine. 5) Flood: Construction of drainage systems around the plant, floodgates, drainage canals, etc.
		6) Having Industrial All Risks Insurance (IAR) to transfer risk of any damages from climate change to 3rd party.

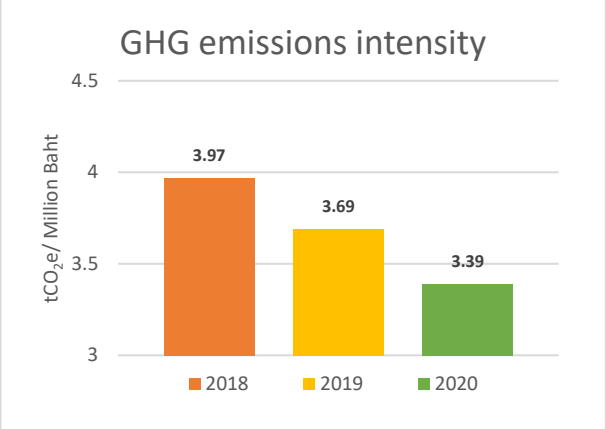
Risk/Opportunity	Risk Impact/Opportunity	Risk/Opportunity Management
Risk: Climate Regulation Change (Transition Risks)	The company must be pay penalty in case does not comply with the changed climate laws and regulations Estimated financial implication of the risk before taking action: higher than 1 million baht as well as suspension of business operation temporally and/or permanently	1) The company has laws and regulation change monitoring process by monthly basis which is including climate change laws and regulations. 2) Providing of laws and regulations log (including climate change laws and regulations) which is updated periodically as well as perform aspect review every 6 months. 3) The auditing of compliance of laws and regulation (including climate change laws and regulations) is performed by internal audit department yearly basis
Risk: Climate impact from the Company's business operations	Increase climate pollution from the Company's power businesses such as Green House Gas, Global Warming, etc.	1) Having greenhouse gas targets and plans. 2) Reduction of Greenhouse Gas Emissions Projects as follows 2.1 Night time electric power saving at inverter buildings. 2.2 Solar rooftop project of the car park and learning center building. 2.3 ATS Power Saving Project
	Increase climate pollution from the Company's biodiesel businesses such as Green House Gas, Global Warming, etc.	
Opportunity: The Company's business opportunities from recognize an important of climate change impacts	Revenue increase from carbon credit sales. Currently, the company's carbon credit revenue is approximately 56 million baht (the lowest expected carbon credit selling price = 20 baht per ton CO2) compare against with last year approximately 25.15 million baht	
Risk: Financial risk from financial cost (interest rate) that higher than the company's competitors due to the Company cannot keep up with the trends of climate change such as the trend of GHG Emission	The company has higher financial costs than competitors and affect competitive ability of the company	

Performance/Success Indicators

Within the year 2020, the Company has set a goal of reducing GHG emissions intensity by 7% compared to the baseline year of 2018. As of 2020, the GHG emissions intensity was 3.39, demonstrating that the Company has achieved emission reductions beyond the target as planned.

	Unit	2018	2019	2020
Direct GHG emissions (Scope 1)	tonCO_2e	39,092	44,201	45,305
Indirect GHG emissions (Scope 2)	tonCO_2e	10,460	10,882	12,965
Total GHG emissions (Scope 1&2)	tonCO_2e	49,552	55,117	58,270
Total Revenue	Million Baht	12,490	14,955	17,199
GHG emissions intensity	tonCO_2e/ Million Baht	3.97	3.69	3.39
GHG emissions intensity target in 2020	tonCO_2e/ Million Baht			3.69





Building a low-carbon society

Emission Reduction Program

The Company supports building the low carbon society and the reduction of greenhouse gas emissions and it has been approved for listing in the Thailand Voluntary Emission Reduction Program: T-VER with the Thailand Greenhouse Gas Management Organization (public organization) or TGO. TGO develops the project to promote and support all sectors to take part in reducing the greenhouse voluntarily. The amount of greenhouse gas reduced or known as 'Carbon Credit' under T-VER or "TVERs" can be traded to the local voluntary carbon market. TGO has determined criteria and procedures for project development, the methodology for reducing greenhouse gas, listing and certifying the amount of greenhouse gas.

In 2020, the Company earned 758,292 tCO_2e of carbon credits under T-VER program from renewable power plants, including solar and wind power plants.

Electric Vehicles Business

The Company continue expands its operation to the business that promotes the use of renewable energy which is environmental-friendly in the replacement of fuel energy in the local transportation system. The Company Group is a part of infrastructure development that supports the Next-generation Automotive by establishing the electric charging stations for electric cars under the trademark "EA Anywhere". The Company Group promotes researches and development about electric vehicles to carry on the electric automotive that truly meet the need of users under the concept Mission No Emission. The idea is to focus on building vehicles that generate no pollution, harmless to the environment, to lead Thailand to become a city of the future innovation, free of pollution under the trademark "MINE Mobility".

On December 22, 2020, the electric ferry was launched under the trademark "MINE Smart Ferry". Using one electric ferry reduces greenhouse gas emissions by 473 tCO_2e/year/electric ferry which is greater than the amount of annual carbon sequestration in Central Park, New York City, and saves over 175,200 liters of fossil fuel per year.