Climate Change Action and Strategy

Thaioil Group has defined the Net Zero GHG Emissions Strategy, called the 3Cs strategies with the details as follows:



Cut Down Existing Emission

Reducing GHG emission in the current process of production (Scope 1 and 2)

Operational Approach

Operational and Investment Approach prior 2030

- Focusing on continuous study and investment in improving energy efficiency, driven by the Energy and Loss Committee to oversee operations.
- Controlling the proportion of low greenhouse gas-emitting fuels used in the production process to exceed the amount of high greenhouse gas-emitting fuels.
- Utilizing high efficiency technologies and phase out older production units with long operational lifespans, resulting in a significant improvement in refinery energy efficiency.
- Discontinuing the use of fuel oil, a high greenhouse gas-emitting fuel, in the production process. This is because the refined fuel oil can be processed into high value products, thereby reducing greenhouse gas emissions in the end consumption phase.
- Exploring the feasibility of adopting Carbon Capture and Storage (CCS) technology for application in production units.

Operational and Investment Approach after 2030

- Studying and investing in Carbon Capture and Storage (CCS) technology in detail for production units to achieve the interim target of reducing greenhouse gas emissions by 15% by 2035, compared to the base year of 2029
- Reviewing and implementing strategies to achieve net-zero greenhouse gas emissions by 2060.
- Supporting the use of nature-based solutions (NbS) as a foundation for restoration.
- Promoting afforestation efforts to capture carbon in the atmosphere
- Generating carbon credits from the cogeneration power plants of TOP SPP within the voluntary greenhouse gas reduction program under Thailand's T-VER standards.
- Exploring the feasibility of generating carbon credits from investment projects that support carbon reduction.
- Developing guidelines for carbon credit trading.

2024 Progress

- Reviewed the operational and investments strategies aimed at reducing greenhouse gas emissions in the production process.
- Implemented a total of 39 energy efficiency improvement projects.
- Collaborated with the PTT Group in conducting a Preliminary Feasibility Study for the application of carbon capture, storage, and utilization technologies, as well as for hydrogen production modifications.
- Monitored and participated in the public consultation process for the draft Climate Change Act.

Compensate Residual Emission

Offsetting the remaining greenhouse gases

- Developing guidelines for carbon credit trading.
- Carbon credits have been generated from the cogeneration power plants of TOP SPP in the voluntary greenhouse gas reduction program under Thailand's T-VER standards since 2019, with a total accumulated certification of 1,674,618 tons of CO₂ equivalent.

• An area of 8,656 rai has been allocated for project implementation in

cooperation with the government, consisting of 8,300 rai of terrestrial

forest and 356 rai of mangrove forest. Afforestation activities are

currently underway on this land, with an estimated carbon dioxide

sequestration of approximately 88,640 tons of CO₂ equivalent over the

- Carbon credits have been generated from a project focused on energy efficiency improvements, totalling 554 tons of CO₂ equivalent.
- Raise awareness and understanding of the carbon market trends and related legal frameworks in Thailand and internationally among executives and employees.

Control Future Emission

Controlling GHG emissions in the future

Seeking investment opportunities in businesses focused on low carbon products, such as Sustainable Aviation Fuel (SAF), bio-based businesses, low carbon hydrogen and its derivatives, and Carbon Capture, Utilization, and Storage (CCUS) technologies.

- Conducted Primary Feasibility Studies on the following:
- Production of Sustainable Aviation Fuel (SAF)

10-year project duration.

- Carbon Capture, Utilization, and Storage (CCUS) technologies
- Low carbon energy business projects, such as low-carbon hydrogen and its derivatives, and other biofuels.
- Monitored international standards and government regulations.