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# Net Zero Greenhouse Gas Emissions Approach

Thailand has officially announced an accelerated national Net Zero target for 2050, advancing the previous schedule by 15 years, through the submission of its updated Nationally Determined Contribution (NDC) on 19 November 2025 at COP30 in Brazil. Achieving the 2050 Net Zero goal will depend on the implementation timeline and stringency of Thailand’s greenhouse gas reduction policies, including the enforcement of the Climate Change Act and the establishment of carbon pricing mechanisms under subsidiary legislation, such as the carbon tax and Emissions Trading System (ETS), which are expected to be operational approximately two years after the main law comes into force.

The company is committed to achieving Net Zero Greenhouse Gas Emissions by 2050, in alignment with the greenhouse gas management guidelines of the Thailand Greenhouse Gas Management Organization (Public Organization) – TGO. This commitment supports the Sustainable Development Goals (SDGs), particularly Goal 13: Climate Action. In addition, the company is currently studying the Task Force on Climate-Related Financial Disclosures (TCFD) framework, as well as approaches to assess climate- and sustainability-related risks and opportunities in accordance with the International Financial Reporting Standards IFRS S1 and IFRS S2, which require disclosure of information that may impact the organization’s financial position.

The company has consistently pursued business operations while fostering sustainable growth with all stakeholders, emphasizing environmental, social, and governance (ESG) aspects. A key focus area is greenhouse gas management and climate change mitigation, achieved by reducing negative impacts, lowering emissions, and developing critical infrastructure, such as promoting clean energy, utilizing existing and emerging technologies, and exploring innovative solutions to support sustainable climate action across the company’s value chain. These efforts align with global climate strategies and Thailand’s national target to achieve Net Zero Greenhouse Gas Emissions by 2050.

## Greenhouse Gas Management Policy

Greenhouse Gas Management Policy, as detailed on our website.

<https://www.ttwplc.com/en/about-ttw/company-policy#tab-environmental-3>

## Operational Approach

The company has established an operational framework to reduce greenhouse gas emissions across its business activities. This includes developing projects and constructing buildings with a focus on resource efficiency, minimizing energy consumption from high-emission sources, and promoting the use of clean energy. Specific targets have been set for reducing electricity consumption and lowering greenhouse gas emissions from the company’s business processes.

## 1. Greenhouse Gas (GHG) Assessment

### 1.1 Organizational Carbon Footprint (CFO) Project

During 2022–2023, the company engaged GreenStyle Co., Ltd. (GS) as a consultant to assess GHG emissions and prepare the Carbon Footprint for Organization (CFO) reports for TTW, PTW, and TWO (three companies), excluding the Bang Pa-In project sites at Bang Pa-In Industrial Estate, Phra Nakhon Si Ayutthaya Province, and Amata City Industrial Estates in Chonburi and Rayong Provinces.

In 2024, the company again engaged the same consultant to assess GHG emissions and prepare CFO reports for TTW, PTW, TWO, and the Bang Pa-In (BIE) project, excluding the same industrial estate areas.

In 2025, the company engaged the same consultant to conduct GHG assessments and prepare CFO reports, separated into two groups:

TTW, covering Bang Len, Krathum Baen, and Bang Pa-In water treatment plants (BLN, KTB, and BIE) PTW, covering the Pathum Thani water treatment plant This assessment will serve as the baseline for setting future Net Zero Commitment targets with the Thailand Greenhouse Gas Management Organization (TGO).

### 1.2 Carbon Footprint of Product (CFP) Project

In 2025, the company initiated GHG measurement under the Carbon Footprint of Product (CFP) for tap water, marking the first year of this assessment (certification valid once every three years) for 2025–2027. This initiative responds to the needs of customers and water users across the three service provinces (Nakhon Pathom, Samut Sakhon, and Pathum Thani) and Bang Pa-In Industrial Estate. The scope covers water production sites of TTW (BLN, KTB, and BIE) as well as PTW.

Verification of the CFO was conducted by the Renewable Energy and Environmental Research Center, University of Phayao, while the CFP was verified by Dr. Surat Setpho, Head of the Greenhouse Gas Certification Unit, University of Phayao, during 15–18 December 2025.

## 2. Membership in the Thailand Carbon Neutral Network (TCNN)

In 2024, the company joined the Thailand Carbon Neutral Network (TCNN) as a pioneer organization in greenhouse gas management. In 2025, the company participated in the Climate Action Leading Organization (CALO) program, supported by ECEE Co., Ltd., the consultant for the Thailand Greenhouse Gas Management Organization (TGO). The program involved three on-site consultations with management to develop a greenhouse gas reduction plan toward achieving a Net Zero Pathway, successfully completed in accordance with TGO guidelines.

The CALO project consultant identified that the company's significant greenhouse gas (GHG) emissions primarily stem from electricity consumption, accounting for 99.5% of Scope 1 and 2 emissions. Major indirect emissions under Scope 3 include fuel- and energy-related activities, procurement of chemicals used in water production, and sludge disposal from water treatment processes. The consultant proposed using the Net Zero Setting Tool to establish a Net Zero Emissions target by 2050 in accordance with the Thailand Greenhouse Gas Management Organization (TGO) guidelines. A five-year Net Zero Pathway model

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was developed, forecasting GHG emissions based on the company’s water distribution volumes. Planned GHG reduction initiatives include the installation of a solar farm at Bang Len water treatment plant, and solar rooftop systems at Krathum Baen water treatment plant (BP2) and Mahachai water supply station (SS3).

As the previous plan was based on actual data from the first six months of 2025 and estimated figures for the remaining six months, the company intends to review and update the plan using actual GHG emissions data for the full 12 months of 2025 as the baseline. Additionally, the company is preparing a supplementary electricity reduction plan through clean energy investments (solar cells), which is under review for approval by the Board of Directors. Once the process is completed in accordance with company procedures, the GHG reduction plan will be disclosed in line with the company’s policy. Following this, the company will proceed with implementing its Net Zero Commitment process in coordination with the Thailand Greenhouse Gas Management Organization (TGO).

On 3 November 2025, the company will receive a Certificate of Recognition as a pilot organization under the “Climate Action Leading Organization (CALO)” program for its efforts toward achieving Net Zero Emissions. The award will be presented by the Minister of Natural Resources and Environment, alongside nine other member organizations of the Thailand Carbon Neutral Network (TCNN).