



LRQA Independent Assurance Statement

Relating to Charoen Pokphand Foods Public Company Limited's assertion for reduction of Greenhouse Gas Emissions by implementing project(s) which shifts boilers' fuel from coal to biomass (called by CPF as "Coal Free by the year 2022" project) for the calendar year 2022

This Assurance Statement has been prepared for Charoen Pokphand Foods Public Company Limited in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

LRQA was commissioned by Charoen Pokphand Foods Public Company Limited (CPF) to provide independent assurance on its assertion for reduction of Greenhouse Gas Emissions by implementing project(s) which shifts boilers' fuel from coal to biomass for the calendar year 2022 when compared against 2019's baseline year ("the assertion") to a limited level of assurance and at materiality of the professional judgement of the verifier using LRQA's verification procedure. LRQA's verification procedure is based on current best practice, is in accordance with ISAE 3000 and ISAE 3410 and uses the following principles of - inclusivity, materiality, responsiveness and reliability of performance data.

Our assurance engagement covered four CPF's factories in Thailand (i.e. Tay Ban Feather and By Product factory in Samut Prakan province, Bangna Agro Feedmill factory in Samut Prakan province, Mahachai Aquatic Feed Manufacturing factory in Samut Sakhon province, and Nongkhae Aquatic Feed Manufacturing factory in Saraburi province) and specifically the following requirements:¹

- Evaluating the reliability of data and information for reduction of Greenhouse Gas Emissions by implementing project(s) which shifts boilers' fuel from coal to biomass for performance during the calendar year 2022 when compared against 2019's baseline year.

Note: 2019 was when CPF announced its coal free target.

LRQA's responsibility is only to CPF. LRQA disclaims any liability or responsibility to others as explained in the end footnote. CPF's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of CPF.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that CPF has not, in all material respects:

- Disclosed reliable performance data and information as no errors or omissions were detected.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

¹ GHG quantification is subject to inherent uncertainty.



LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Carrying out remote interviews with the responsible engineers at each factory listed in the terms of engagement above. Engineers are the key people involved in the project(s).
- Reviewing design specification of boilers and related equipment before and after modification including TOR, signed purchase agreement with the maker to modify boilers and related equipment for this project as well as the commissioning report.
- Visiting Nongkhao Aquatic Feed Manufacturing factory in Saraburi province, as the selected sample, to observe project implementation / operations in real-time; for example, biomass boiler, biomass storage and feed system, and weighing method, etc.
- Reviewing fuel data (type and quantity of) as used by the boilers at each of the four factories during the baseline year 2019 and calendar year 2022. Data was held in CPF's SAP database and/or the annual report of energy consumption which was submitted to Department of Alternative Energy Development and Efficiency (DEDE) Ministry of Energy.
- Auditing CPF's data management systems to confirm that there were no significant errors, omissions or misstatements in the assertion. We did this by
 - reviewing the effectiveness of data handling procedures,
 - interviewing the key people responsible for calculating baseline emission, project emission and emission reduction, and
 - reviewing the mentioned calculation method as well as reference source data for NCV and emission factor of fuels.

Observations

Further observations and findings, made during the assurance engagement, are:

- Reliability:

There is an established data management system that systematically collects fuel data - type and quantity of - for the boilers. This data is used to calculate the baseline emission, project emission and reduction of GHG emission. However, we believe that the percentage moisture content of fuel should also be considered in the calculation, in order to further improve its reliability.

Note: Currently, the wet weight of biomass is calculated by multiplying directly with fuel's NCV (Dry basis heating value) for calculation of GHG emission without deduction of %moisture content. This causes over reporting of GHG emission both in baseline and project emission.

LRQA's standards, competence and independence

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LRQA provided service to review CPF's SHE & EN Standard to ensure that it was developed based on the risk management principles in accordance with the relevant ISO standards. The verification and certification assessments are the only work undertaken by LRQA for CPF and as such does not compromise our independence or impartiality.

Paveena Hengsritawat
LRQA Lead Verifier

Dated: 8 March 2023

On behalf of LRQA (Thailand) Limited
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CPF Coal Free by the year 2022.

Charoen Pokphand Foods Public Company Limited's assertion for reduction of Greenhouse Gas Emissions by implementing project(s) which shifts boilers' fuel from coal to biomass for the calendar year 2022 (Compared to baseline year 2019).

Project background: In 2019, CPF announced its "Coal Free" policy which aimed to stop using coal in its boilers. CPF, through the implementation of project(s), switched its fuel consumption from coal to biomass in its operation business units in Thailand. There were four operation sites within the project scope i.e.

- Thai Ban feather processing factory in Samut Prakan province
- Bangna k.m.21 Livestock Feed factory in Bangkok
- Mahachai Aqua Feed factory in Samut Sakhon province
- Nong Khae Aqua Feed factory in Saraburi province

At the end of December 2022, the project was complete and CPF no longer used coal. CPF had achieved its "Coal free by the year 2022" target.

During the calendar year 2022, the total quantity of reduction in GHG emissions was equal to 42,080 Ton CO₂eq.