

Assurance Statement related to GHG Emissions

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Assurance Statement

related to Olympus Corporation's GHG Emissions Inventory
for the fiscal year 2017

Terms of Engagement

This Assurance Statement has been prepared for Olympus Corporation.

Lloyd's Register Quality Assurance Ltd. (LRQA) was commissioned by Olympus Corporation (hereafter referred to as "the organisation") to assure its GHG Emissions Inventory for the fiscal year 2017 (1 April 2017 to 31 March 2018) (hereafter referred to as "the report"). The report relates to direct GHG emissions (Scope 1)¹, energy indirect GHG emissions (Scope 2)¹ and other indirect GHG emissions related to upstream transportation and distribution (Scope 3, Category 4)² from the activities of the organisation and its consolidated subsidiaries in Japan and overseas.

Management Responsibility

The organisation's management was responsible for preparing the report and for maintaining effective internal controls over the data and information disclosed. LRQA's responsibility was to carry out an assurance engagement on the report in accordance with our contract with the organisation.

Ultimately, the report has been approved by, and remains the responsibility of the organisation.

LRQA's Approach

Our verification has been conducted in accordance with ISO 14064-3:2006 *Specification with guidance for validation and verification of greenhouse gas assertions* to provide limited assurance that the GHG emissions data as presented in the report and as summarized in Table 1 and Table 2 below have been prepared in conformance with the organisation's in-house reporting procedures and with reference to ISO14064-1:2006.

To form our conclusions, the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- reviewed the management system documents for GHG emissions data, information and records, covering all the processes up to the preparation of the GHG Emissions Inventory;
- interviewed relevant staff of the organization responsible for managing GHG emissions data and records;
- assessed effectiveness of implementation of the GHG management system and the internal data verification;
- conducted site tours of the facilities and reviewed processes related to the control of GHG emissions data and records at Nagano Facility Ina, Olympus Co., Ltd and Olympus Vietnam Co., Ltd.; and
- verified historical GHG emissions data and records at an aggregated level for the fiscal year 2017, including the associated main activity data for each type of energy consumption as summarised in Table 1 and Table 2 below.

Level of Assurance & Materiality

The opinion expressed in this Assurance Statement has been formed on the basis of a limited level of assurance and at a materiality of the professional judgment of the Verifier.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that the total direct GHG emissions, energy indirect GHG emissions and other GHG emissions related to upstream transportation and distribution as disclosed in the Report as summarized in Table 1 and Table

¹ The Scopes are as defined in *The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard*.

² The categories of Scope 3 emissions are as defined in the *Greenhouse Gas Protocol – Corporate Value Chain (Scope 3) Accounting and Reporting Standard*.

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2 below are not materially correct and that the report has not been prepared in conformance with the organisation's in-house reporting procedures and with reference to ISO14064-1.

LRQA's Recommendations

The organization has year-on-year demonstrated improvement in its data management system. However, the organization should further demonstrate the completeness of its future GHG Emissions Inventory. This is particular to expanding the reporting boundaries of its Scope 1 and Scope 2 emissions and identifying other relevant Scope 3 categories across its entire value chain.

Signed:

Dated: 28 June 2018

Norihiko Kinoshita
LRQA Lead Verifier
On behalf of Lloyd's Register Quality Assurance Limited
Japan Business Centre, Queen's Tower A, 10th Floor
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LRQA Reference: YKA4005278

Table 1. Summary of Olympus Corporation, Energy Consumption 2017

Type of energy consumption		TJ	MWh
Direct energy consumption	Town gas	187	51,825
	Liquefied petroleum gas (LPG)	71	19,708
	Liquefied natural gas (LNG)	45	12,454
	Heavy oil	7	2,072
	Kerosene	2	548
	Diesel oil	1	228
	Gasoline	0	3
Indirect energy consumption	Electricity	1,836	186,974
	Hot water	2	682
	District heat	8	2,145

Table 2. Summary of Olympus Corporation, GHG Emissions Inventory 2017

Scope of GHG emissions	Tonnes CO ₂ e
Direct GHG emissions (Scope 1)	16,427
Energy indirect GHG emissions (Scope 2, Market-based)	97,664
Other indirect GHG emissions (Scope 3 - Category 4) related to upstream transportation and distribution	50,779

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Due to inherent limitations in any internal control, it is possible that fraud, error, or non-compliance with laws and regulations may occur and not be detected. Further, the verification was not designed to detect all weakness or errors in internal controls so far as they relate to the requirements set out above as the verification has not been performed continuously throughout the period and the verification carried out on the relevant internal controls were on a test basis. Any projection of the evaluation of control to future periods is subject to the risk that the processes may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

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