

Independent Assurance Statement to PETRONAS

ERM Certification and Verification Services (ERM CVS) was engaged by PETROLIAM NASIONAL BERHAD ('PETRONAS') to provide assurance on the greenhouse gas (GHG) emissions from its Malaysia Operations for the calendar years ending 31st December 2017, 2018 and 2019 as disclosed in PETRONAS' Integrated Report 2020.

Engagement Summary	
Scope	Whether the consolidated corporate GHG emissions data for PETRONAS' Malaysia Operations for the period 1 st January – 31 st December 2017, 2018 and 2019 are, in all material respects, fairly presented in accordance with the reporting criteria. The GHG emissions inventory, reported on an operational control basis and covering emissions of CO ₂ , N ₂ O and CH ₄ , includes: <ul style="list-style-type: none">• Total Scope 1 Direct GHG emissions from stationary fuel combustion, mobile fuel combustion, flaring, venting and fugitive sources.• Total Scope 2 Indirect GHG emissions (location-based) from purchased electricity.
Reporting criteria	PETRONAS Technical Standard – Greenhouse Gas Monitoring, Reporting and Verification (PTS 18.72.05, December 2018 version).
Verification standard	ISO 14064-3: Specification with guidance for the validation and verification of greenhouse gas assertions.
Level of Assurance	Limited assurance.
Respective responsibilities	PETRONAS is responsible for preparing the GHG emissions data and for the presentation of the information in its Integrated Report 2020. ERM CVS's responsibility is to provide conclusions on the agreed scope based on the verification activities performed and exercising our professional judgement.

Our conclusion

Based on our activities, nothing has come to our attention to indicate that the following GHG emissions data from PETRONAS' Malaysia Operations, for the calendar years ending 31st December 2017, 2018 and 2019, as disclosed in PETRONAS' Integrated Report 2020, are not fairly presented, in all material respects, with the reporting criteria:

2017: 53.6 million tonnes CO₂e

2018: 48.1 million tonnes CO₂e

2019: 48.4 million tonnes CO₂e

Our verification activities

Our objective was to assess whether the GHG emissions data are reported in accordance with the principles of relevance, completeness, consistency, transparency and accuracy. We planned and performed our work to obtain all the information and explanations that we believe were necessary to provide a basis for our conclusion. A team of GHG and verification specialists performed the following activities:

- Reviews of relevant documentation and interviews with PETRONAS corporate and business unit personnel to understand PETRONAS' GHG accounting and reporting processes, including the alignment of PETRONAS' Technical Standard (PTS 18.72.05) with ISO 14064-1, and the GHG data management and reporting systems and tools;
- An analytical review of the 2017, 2018 and 2019 GHG emissions data from all PETRONAS Malaysia Operations and a check on the completeness and accuracy of the data consolidation at the PETRONAS corporate level;
- Virtual "visits" to selected PETRONAS operations in Malaysia (covering Upstream, Gas and New Energy, and Downstream operations) to verify, on a sample basis, the activity data underlying the GHG emissions of those operations for 2017, 2018 and 2019;
- An evaluation of the data management systems and processes (including data collection and internal review processes) used for collecting and reporting the GHG data;
- A review of the calculation of the GHG emissions from the underlying activity data, including a review of the conversion factors and emission factors used;
- A review of the internal GHG verifications carried out by PETRONAS on selected Malaysia Operations during the 2017-2019 period, including a review of the status of the findings from those verifications;
- A review of the consistency of the GHG emissions data for 2017, 2018 and 2019 reported in PETRONAS' Integrated Report 2020 with the final verified data.

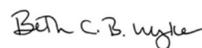
The limitations of our engagement

The reliability of the verified data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

Due to travel restrictions as a result of COVID-19 our verification activities on the 2017, 2018 and 2019 GHG emissions data were carried out through a combination of desk-based reviews of data and supporting evidence, virtual interviews and meetings with PETRONAS corporate and business unit level reporting teams, and virtual visits to selected PETRONAS operations in Malaysia. We did not undertake any in-person visits to PETRONAS operations.

Our observations

Based on the work outlined above, we have provided PETRONAS management with a separate, confidential verification report detailing our assessment of its GHG emissions data for the calendar years ending 31st December 2017, 2018 and 2019.



31st March 2021
Beth Wyke
Partner, Head of Corporate Assurance

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