Assurance Statement
related to the Royal Dutch Shell plc Greenhouse Gas Assertion for the Other Indirect (Scope 3) Greenhouse Gas Inventory for calendar year ended December 31, 2018.

Terms of Engagement
This Assurance Statement has been prepared for Shell Global Solution International B.V., Carel van Bylandtlaan 30, 2596 HR the Hague, The Netherlands (hereafter referred to as “Shell”).

Lloyd’s Register Quality Assurance Ltd (“LRQA”) was commissioned by Shell to assure its Greenhouse Gas Assertion (hereafter referred to as “the GHG Assertion”) for the calendar year 2018, which follows:

1. “The other indirect (scope 3) greenhouse gas (GHG) emissions from use of our refinery fuel and natural gas products are estimated as 599 million tonnes CO₂ in 2018.

2. The emission estimate is made up of:
   • 381 million tonnes from the use of refinery fuel products reported in the Refinery Outturn table of the 2018 Shell Annual Report.
   • 218 million tonnes from the use of natural gas production reported in the 2018 Shell Annual Report.

3. The 2017 Base Year number for the combined refinery fuel and natural gas products in 2018 did not change by more than the 5% threshold and hence the base year has not been recalculated.

4. The boundaries used to report emissions from refinery products and natural gas available for sale are consistent with those used in the Annual Report.

5. Emissions from the use and disposal of chemical products, lubricants and other non-fuel products like bitumen are not included. Refinery type products produced by Chemical plants are also not included.”

The above GHG Assertion relates to other indirect (scope 3) greenhouse gas (GHG) emissions from facilities within the following Shell businesses: Upstream; Downstream; Integrated Gas and New Energies.

The production (activity) data in GHG Assertion point 2 and the boundaries defined in GHG Assertion points 4 and 5 have not been included within the scope of this assurance engagement.

The 599 million tonnes will be reported within the Royal Dutch Shell plc Sustainability Report 2018 and on the webpage: www.shell.com/ghg (GHG breakdown tab). The full assertion (1-5) will be published on the same webpage.

LRQA has not been involved in the preparation of any material included within the GHG Assertion nor in devising the internal management and reporting systems that yielded the data contained therein.

Management Responsibility
Shell’s management was responsible for preparing the GHG Assertion and for maintaining effective internal controls over the data and information disclosed. LRQA’s responsibility was to carry out an assurance engagement on the GHG Assertion in accordance with our contract with Shell. Ultimately, the Report has been approved by, and remains the responsibility of Shell.

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 Shell GHG data and information as presented in the GHG Assertion has been prepared in conformance with:

• ISO 14064–1:2006 – Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals (hereafter referred to as ISO 14064-1);

• American Petroleum Institute – Compendium of Greenhouse Gas Emissions methodologies for the Oil and Gas Industry 2009 (hereafter referred to as the API Compendium); and


LRQA is accredited to ISO 14065:2013 – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition. This includes greenhouse gas verification of ISO 14064-1:2006.
To form our conclusions, the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- Reviewed the GHG emissions data included in the 2018 other indirect GHG inventory to determine conformance with ISO 14064-1, the API Compendium and the GHG Protocol;
- Reviewed the processes to calculate other indirect GHG emissions that are used at the corporate level;
- Verified the other indirect GHG emissions data for 2018 included in the GHG inventory, using data and information available at the Shell corporate level. LRQA has not verified data at facility level.

**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 the materiality of the professional judgement of the Verifier.

**LRQA’s Opinion**

Based on LRQA’s approach, nothing has come to our attention that would cause us to believe that:

i. the GHG data and information as presented in the GHG Assertion are not materially correct; and

ii. Shell is not in conformance with ISO 14064-1, the API Compendium 2009 or the GHG Protocol.

For information:

- Data from the International Fuels Quality Center (IFQC) http://www.ifqc.org/ was combined with Shell’s regional oil product data to produce weighted average density figures.
- An emission factor of 2.65 tonnes CO₂ per tonne natural gas was derived from natural gas composition as reported in W.E. Liss, et.al, PB92-224617, “Variability of Natural Gas Composition in Select Major Metropolitan Areas of the United States”, Gas Research Institute (GRI), 1992.

Additional GHG Assertions can be found on the webpage: www.shell.com/ghg

Signed: Paul Jackson

Dated: 26 February 2019

Paul Jackson
Lead Verifier
On behalf of Lloyd’s Register Quality Assurance Limited
1 Trinity Park, Bickenhill Lane,
Birmingham, B37 7ES, United Kingdom.

LRQA reference: LRQ4004543

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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 weaknesses 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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