

**Assurance Statement related to
Net Carbon Footprint for Calendar Year 2019
Prepared for Royal Dutch Shell plc**

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 ("LR") was commissioned by Shell to assure its Net Carbon Footprint Assertion (hereafter referred to as "the NCF Assertion") for the calendar year 2019, which follows:

1. *Our Net Carbon Footprint is estimated as 78 grams of CO₂ equivalent per Megajoule (gCO₂e/MJ) in 2019.*
2. *The Net Carbon Footprint is estimated in accordance with the methodology document titled SR.19.00134, The Net Carbon Footprint Model: Methodology¹.*

The Net Carbon Footprint is determined by first estimating the emissions intensity for each of the energy product supply chains in Shell's portfolio; this is done using established lifecycle analysis principles and includes both the emissions associated with the production and processing of energy products and the emissions associated with their use. The individual intensities are then aggregated into a single value, with the weighting for each product determined by its sales volume, emissions captured in sinks are deducted to give the final net value.

The boundary for the product sales included in the Net Carbon Footprint encompasses not only energy products manufactured and sold by Shell, but also products manufactured by 3rd parties and purchased by Shell for re-sale.

The following supply chains and steps in the product lifecycles are included in the Net Carbon Footprint:

- *Oil products: (i) crude oil production, (ii) transportation of crude oil (pipeline/shipping), (iii) refining, (iv) distribution of oil products, and (v) end use of oil products.*
 - *Pipeline gas: (i) gas production, (ii) transportation of gas via pipeline, and (iii) end use of gas.*
 - *LNG: (i) gas production, (ii) transportation of gas via pipeline, (iii) liquefaction, (iv) shipping of LNG products, (v) regasification of LNG in recipient terminals, (vi) local distribution of gas, and (vi) end use of gas.*
 - *GTL fuels: (i) gas production, (ii) transportation of gas via pipeline, (iii) gas-to-liquid processing, (iv) shipping of GTL products, (v) local distribution of GTL fuel products, (vi) end use of GTL fuels.*
 - *Biofuels: (i) production, (ii) transportation (domestic/shipping), (iii) distribution and (iv) end use of biofuels.*
 - *Electricity from renewable sources, solar and wind, converted to fossil energy equivalent and electricity purchased and re-sold from the national transmission/distribution networks.*
 - *CO₂ reductions: the impact of CO₂ reductions from carbon capture usage and storage (CCUS) projects, nature-based solutions (NBS) and other carbon offsets.*
3. *The boundaries used to estimate the Net Carbon Footprint from production, processing and use of energy products are consistent with those used in Shell's Annual Report.*
 4. *Additional product sales data used to estimate the Net Carbon Footprint are taken from Shell's 2019 Sustainability Report.*
 5. *The following GHG emissions are not included in the Net Carbon Footprint calculation:*
 - a. *Emissions from production, processing, use and end-of-life treatment of non-energy products, such as chemicals and lubricants;*

¹ Publicly available via <https://www.shell.com/energy-and-innovation/the-energy-future/what-is-shells-net-carbon-footprint-ambition.html>

- b. Emissions associated with construction and decommissioning of production and manufacturing facilities;*
 - c. Emissions associated with the production of fuels purchased to generate energy onsite;*
 - d. Other indirect emissions from waste generated in operations, business travel, employee commuting, transmission and distribution losses associated with imported electricity, franchises and investments;*
 - e. Traded volumes of energy products not destined for use or marketing to end-customers;*
 - f. Emissions from 3rd party processing of sold intermediate products;*
 - g. Emissions from capital goods and other goods and services not related to purchased energy feedstocks sourced from 3rd parties or energy products manufactured by 3rd parties and sold by Shell.*
- 6. The impact of end-use efficiency on the use of sold energy products is not considered in the estimation of the Net Carbon Footprint.*
 - 7. Greenhouse gas emissions for assets wholly or partially owned and operated by Shell were derived from direct and energy indirect GHG emissions data verified to a limited level of assurance in February 2020. Greenhouse gas emissions for assets wholly or partially owned by Shell (but operated by a third party) were derived from combination of actual 2019 direct and energy indirect GHG emissions data collected from our partners and estimates based on best available data during the preparation of this assertion. We consider these estimates to have an immaterial impact on our 2019 Net Carbon Footprint value.*
 - 8. Direct GHG emissions (scope 1) used to estimate the Net Carbon Footprint comprise CO₂, CH₄, N₂O, HFC, SF₆, PFC and NF₃ for assets operated by Shell. Energy indirect GHG emissions (scope 2) for assets operated by Shell, scope 1 and 2 GHG emissions from non-operated assets and other indirect (scope 3) GHG emissions include CO₂. CH₄ and N₂O are included where data is available. We have not estimated the contribution of HFC, SF₆, PFC and NF₃ on scope 1, 2 and 3 for assets not operated by Shell because our analysis shows that based on our own data, the contribution of these gases is immaterial to the overall Net Carbon Footprint.*
 - 9. GHG emissions were calculated using global warming potentials from the IPCCs Fourth Assessment Report*
 - 10. Carbon offsets equivalent to 2.2 million tonnes CO₂ were included in the 2019 Net Carbon Footprint calculation.*
 - 11. The Shell share of CO₂ sequestered by the Quest carbon capture and storage project was included in the Net Carbon Footprint calculation.*

Management Responsibility

Shell's management was responsible for preparing the NCF Assertion and for maintaining effective internal controls over the data and information disclosed. LR's responsibility was to carry out an assurance engagement on the NCF Assertion in accordance with our contract with Shell.

Ultimately, the NCF Assertion has been approved by, and remains the responsibility of Shell.

LR'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 data and information as presented in the NCF Assertion have been prepared in conformance with SR.19.00134, The Net Carbon Footprint Model: Methodology.

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

- Reviewed the Net Carbon Footprint model and calculations for the calendar year 2019 to determine conformance with the method document titled SR.19.00134. LR has not verified data at facility level;
- Verified the scope of the Net Carbon Footprint model, including inclusions and exclusions;
- Confirmed the internal management system surrounding the Net Carbon Footprint model, including peer reviews and internal reviews;
- Investigated the integrity of input data and confirmed the reasonableness of assumptions regarding non-Shell processes;

- Interviewed relevant staff of the organization responsible for managing the Net Carbon Footprint model, calculation and governance processes.

Level of Assurance & Materiality

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

LR's Opinion

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

- the NCF data and information as presented in the NCF Assertion are not materially correct; and
- Shell is not in conformance with the method document titled SR.19.00134.

Signed

Dated: 28 February 2020



Heather Moore, P.E.
LR Lead Verifier
On behalf of
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LR reference number: LRQ4004543

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