

## Assurance Statement related to Greenhouse Gas Emissions Inventory for Calendar Year 2017 prepared for Republic Services, Inc.

### **Terms of Engagement**

This Assurance Statement has been prepared for Republic Services, Inc. (Republic).

Lloyd's Register Quality Assurance Inc. (LRQA) was commissioned by Republic to assure its GHG Emissions Inventory for the calendar year 2017 (hereafter referred to as "the Inventory").

The Inventory relates to direct (Scope 1) GHG emissions, energy indirect (Scope 2) GHG emissions, and other indirect (Scope 3) GHG emissions. The Scope 3 GHG emissions include Business Travel and Haulage contract services.

All emission scopes include only Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), and Nitrous Oxide (N<sub>2</sub>O).

#### **Management Responsibility**

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

Ultimately, the Inventory has been approved by, and remains the responsibility of Republic.

### 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 GHG data as presented in the Inventory have been prepared in conformance with the World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol: A Corporate Accounting and Reporting Standard and Republic Services' Greenhouse Gas Inventory Management Plan.

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

- Reviewed processes related to the control of GHG emissions data and records;
- Interviewed relevant staff of the organization responsible for managing GHG emissions data and records: and
- Verified historical GHG emissions data and records at an aggregated level for the calendar year 2017.

#### **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 Scope 1, Scope 2 and Scope 3 GHG emissions disclosed in the Inventory, as summarized in Table 1 below, are not materially correct and that the Inventory has not been prepared in accordance with the WRI/WBCSD GHG Protocol and Republic's Greenhouse Gas Inventory Management Plan, except for the following qualifications:

- LRQA is unable to provide assurance of Republic's total Scope 1, Scope 2 and Scope 3 GHG
  emissions for CY2017 because we were only contracted to verify emissions of CO<sub>2</sub>, CH<sub>4</sub>, and
  N<sub>2</sub>O.
- The 2016 emissions total applied in the calculation of the Scope 1 and Scope 2 year-on-year change metric in Table 1 below were different from the values verified for calendar year 16 due to discoveries that took place after the verification. The differences are not material.



Signed Dated: May 24, 2018

Natali P. Garfer

LRQA Lead Verifier On behalf of Lloyd's Quality Assurance, Inc., 1330 Enclave Parkway, Suite 200, Houston, TX 77077

LRQA reference number: UQA00000499

Table 1. Summary of Republic, GHG Emissions Inventory 2017

Scope	Value	Units
Scope 1 Emissions	13,486,262	Tonnes CO <sub>2e</sub>
Scope 1 Biogenic Emissions	7,232,596	Tonnes CO <sub>2e</sub>
Scope 2 Emissions (Electricity, Location based)	208,361	Tonnes CO <sub>2e</sub>
Scope 2 Emissions (Electricity, Market based)	231,199	Tonnes CO <sub>2e</sub>
Scope 2 Emissions (Other – Heat in leased buildings)	52,683	Tonnes CO <sub>2e</sub>
Scope 3 Emissions (Business Travel and Haulage only)	257,066	Tonnes CO <sub>2e</sub>
Total Scope 1 and Scope 2 Emissions (Location based)	13,747,306	Tonnes CO <sub>2e</sub>
Scope 1 and Scope 2 Year-on-Year change	-3.6%	Percent

This Assurance Statement is subject to the provisions of this legal section:

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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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