



# LRQA Independent Assurance Statement

## Relating to Ingersoll Rand Industrial US., Inc.'s Greenhouse Gas Emissions from Products Sold in the Calendar Year 2022

This Assurance Statement has been prepared for Ingersoll Rand Industrial US., Inc. in accordance with our contract.

### Terms of Engagement

LRQA was commissioned by Ingersoll Rand Industrial US., Inc. (Ingersoll Rand) to provide independent assurance of the Scope 3 Greenhouse Gas (GHG) emissions from the Use of Sold Products ("the report") for the calendar year 2022 against the assurance criteria below to a limited level of assurance and materiality of the professional judgement of the verifier using LRQA's verification procedure and ISO 14064 Part 3 for greenhouse gas emissions. LRQA's verification procedure is based on current best practice and is in accordance with ISAE 3000 and ISAE 3410.

Our assurance engagement covered Ingersoll Rand's use-phase GHG emissions for the product lifespan, which consists of the emissions from product use and the upstream life cycle emissions of electricity and refrigerants required for operation, as applicable to the product. The engagement covered specifically the following requirements:

- Verifying conformance with:
  - Ingersoll rand's reporting methodologies for the selected datasets;
  - World Resources Institute / World Business Council for Sustainable Development Greenhouse Gas Protocol: A corporate accounting and reporting standard, revised edition (otherwise referred to as the WRI/WBCSD GHG Protocol) for the GHG data<sup>1</sup>.
- Reviewing whether the Report has taken account of:
  - Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
  - Other indirect (Scope 3) greenhouse gas emissions Category 11: Use of Sold Product

Our assurance engagement excluded certain data and information, as described below:

- Service and replacement parts have been determined to be outside the boundary of the product use phase assessment. Replacement parts include consumables such as belts, oil filters, air filters, air separators, oil separators, oil sample bottles, other chemicals, cabinet filters, VFD filters, tubes, seals etc.
- Emissions calculations performed in SimaPro to calculate the lifecycle GHG emissions from production and use of electricity and refrigerants. SimaPro is a life cycle assessment software that is widely used in the industry for life cycle calculations.

LRQA's responsibility is only to Ingersoll Rand. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Ingersoll Rand's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of Ingersoll Rand.

### LRQA's Opinion

Based on LRQA's approach, except for the effect of the matters described in the Basis for Qualified Opinion, nothing has come to our attention that would cause us to believe that Ingersoll Rand has not, in all material respects:

- Met the requirements of the criteria listed above; and
- Disclosed accurate and reliable performance data and information as summarized in Table 1 below.

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<sup>1</sup> <http://www.ghgprotocol.org/>



**Basis for Qualified Opinion**

- Some corrections made to product spreadsheets were not reflected in the totals reported for business units, as these updates did not change the organizational totals when rounded to million metric tons of CO<sub>2</sub>e.

The opinion expressed is formed on the basis of a limited level of assurance<sup>2</sup> and at the materiality of the professional judgement of the verifier.

**Table 1. Summary of Ingersoll Rand’s Product Use Phase GHG Emissions, CY 2022**

Environmental Data Parameter	Quantity	Unit
Total Lifetime Emissions <sup>1,2</sup>	220.62	Million Metric Tons CO <sub>2</sub> e
Average Single Year Emissions <sup>1,2</sup>	14.36	Million Metric Tons CO <sub>2</sub> e

Note 1: Includes lifecycle GHG emissions from product use phase inputs of electricity and refrigerants as applicable by product. Lifecycle emissions for inputs calculated by SimaPro using the EPA TRACI 2.1 V1.06 methodology and emission factors from EcoInvent 3.8 8 and DATASMART Version, 2021.1.

Note 2: EIA Stated Policies Scenario (STEPS) emission reduction percentages were used by SimaPro to calculate indirect emissions from electricity use over life of the products.

**Table 2. Ingersoll Rand’s Product Use Phase GHG Emissions by Business Unit, CY 2022**

Business Unit	Average Single Year Emissions Million Metric Tons CO <sub>2</sub> e	Total Lifetime Emissions Million Metric Tons CO <sub>2</sub> e
Industrial Technologies and Services: Americas <sup>1,2</sup>	1.85	26.60
Industrial Technologies and Services: Europe, Middle East, India, and Africa <sup>1,2</sup>	1.66	23.20
Industrial Technologies and Services: Asia Pacific <sup>1,2</sup>	6.85	124.65
Industrial Technologies and Services: Multi-Stage Geared Global <sup>1,2</sup>	1.26	25.21
Precision Science and Technologies <sup>1,2</sup>	1.49	9.59
Power Tools and Lifting <sup>1,2</sup>	1.25	11.38
<b>Company Total<sup>1,2</sup></b>	<b>14.36</b>	<b>220.62</b>

Note 1: Includes lifecycle GHG emissions from product use phase inputs of electricity and refrigerants as applicable by product. Lifecycle emissions for inputs calculated by SimaPro using the EPA TRACI 2.1 V1.06 methodology and emission factors from EcoInvent 3.8 8 and DATASMART Version, 2021.1.

Note 2: EIA Stated Policies Scenario (STEPS) emission reduction percentages were used by SimaPro to calculate indirect emissions from electricity use over life of the products.

<sup>2</sup> The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.



### **LRQA's Approach**

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- assessing Ingersoll Rand's data management systems to confirm they are designed to prevent significant errors, omissions or mis-statements in the Report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal quality control;
- Interviewing appropriate staff;
- Sampling specific products to confirm accurate input into SimaPro calculation model;
- Analysing data aggregation process to confirm accuracy and completeness.

### **LRQA's Standards and Competence**

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition and ISO/IEC 17021 Conformity assessment – Requirements for bodies providing audit and certification of management systems that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

Signed

Dated: 25 August 2023

A handwritten signature in cursive script that reads 'Brooke Farrell'.

Broke Farrell  
LRQA Lead Verifier  
On behalf of LRQA, Inc.,  
2101 CityWest Blvd Houston, TX 77042

LRQA reference: UQA000001922/ 5445872

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