



LRQA Independent Assurance Statement

Relating to Ingersoll Rand Industrial US., Inc.'s Greenhouse gas Inventory and Environmental & Safety Data for the 2022 Calendar Year

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 its Greenhouse Gas (GHG) emissions Inventory and select environmental and safety data ("the Report") for the 2022 calendar year (CY 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 practise and is in accordance with ISAE 3000 and ISAE 3410.

Our assurance engagement covered GHG and environmental data at Ingersoll Rand's financially controlled global operations and activities, and safety metrics at Ingersoll Rand's operationally controlled operations. The engagement covered specifically the following requirements:

- Verifying conformance with:
 - Ingersoll Rand's reporting methodologies for the selected datasets; and
 - 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).
- Reviewing whether the Report has taken account of:
 - WRI GHG Protocol Scope 3 Accounting and Reporting Standard
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
 - Direct (Scope 1), Energy Indirect (Scope 2) and Other Indirect (Scope 3) GHG emissions;
 - Scope 3 GHG emissions verified by LRQA only include Business Travel (Air and Rail) and Employee Commuting.
 - Energy Use;
 - Water Consumption;
 - Waste generated;
 - Volatile Organic Compounds (VOC's); and
 - Safety metrics.

Aside from the Scope 3 categories mentioned above, our assurance engagement excluded the data and information of Ingersoll Rand's suppliers, contractors and any third-parties mentioned in the report.

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.

The opinion expressed is formed on the basis of a limited level of assurance¹ and at the materiality of the professional judgement of the verifier.

Basis for Qualified Opinion

- For some sites the energy values and emissions reported in Gensuite are slightly lower than energy values reported by the sites due to heating value assumptions programmed in Gensuite;
- Fugitive emissions from vehicle air conditioning have not been reported; and
- Building emissions from physical locations associated with service repair facilities have not been included.

These errors and omissions do not have a material impact on the inventory.

Table 1. Summary of Ingersoll Rand’s GHG Emissions, CY 2022

Scope of GHG emissions ^{1,1}	Metric Tonnes CO ₂ e
Scope 1 GHG emissions	35,771
Scope 2 GHG emissions (Location-based) ^{1,2}	65,367
Scope 2 GHG emissions (Market-based) ^{1,2}	52,962
Scope 3 GHG emissions: Business travel (Air and Rail)	4,103
Scope 3 GHG emissions: Employee commuting	23,270
Note 1.1: Greenhouse Gas Emissions were reported based on financial control and do not include leased administrative sites or sites that were acquired or divested during the 2022 calendar year. Note 1.2: Scope 2, Location-based and Scope 2, Market-based are defined in the WRI/WBCSD GHG Protocol Scope 2 Guidance, 2015.	

Table 2. Summary of Ingersoll Rand’s Environmental Data, CY 2022

Environmental Data Parameter ^{2,1}	Data	Unit
Fuel Energy Use ^{2,2}	145,703	MWh
District Energy (Purchased Steam/Heat)	2,239	MWh
Electricity Energy Use (non-renewable)	113,330	MWh
Electricity Energy Use ^{2,3} (Total)	144,991	MWh
Total Energy Use (Fuel + Electricity + Steam/Heat)	292,933	MWh
Total Renewable Energy Generated	3,180	MWh
Total Renewable Energy Purchased	29,056	MWh

¹. 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.



Total Water Use	0.507	Million Cubic Meters
Hazardous Waste Generated ^{2.4}	1,443	Metric Tons
Non-Hazardous Waste Generated ^{2.5}	27,877	Metric Tons
Non-Hazardous Waste Recycled ^{2.6}	16,852	Metric Tons
VOC Emissions ^{2.7}	76	Metric Tons
<p>Note 2.1. Environmental data was reported based on a financial control basis and does not include leased administrative sites or sites that were acquired or divested during the 2022 calendar year.</p> <p>Note 2.2. Fuel Energy Use includes energy from natural gas, propane, gasoline, and diesel fuel.</p> <p>Note 2.3. Electricity Energy Use includes electricity from renewable and non-renewable sources.</p> <p>Note 2.4. Hazardous waste generated includes all hazardous waste shipped offsite.</p> <p>Note 2.5. Non-hazardous waste generated includes all non-hazardous waste shipped offsite, including non-hazardous waste sent to landfill, non-hazardous waste sent for disposal other than landfill (e.g., incineration), and scrap metal.</p> <p>Note 2.6. Non-hazardous waste recycled includes non-hazardous waste sent to recycle/reuse, and scrap metal recycled.</p> <p>Note 2.7. VOC emissions reported for sites emitting one ton or more per year.</p>		

Table 3. Ingersoll Rand Sites Operating with Renewable Electricity, CY 2022

Business Unit	Location	Facility Type
Industrial Technologies and Services: Americas (ITS-Americas)	Campbellsville, KY-USA	Manufacturing
	West Chester, PA-USA	Manufacturing
Precision Science and Technologies	Bottrop-Germany	Manufacturing
	Chennai, India	Manufacturing
	Ilmenau-Germany	Manufacturing
	Memmingen-Germany	Manufacturing
Industrial Technologies and Services: Europe, Middle East, India, and Africa (ITS-EMEIA)	Bad Neustadt Saale-Germany	Manufacturing
	Simmern-Germany	Manufacturing
	Kirchhain-Germany	Manufacturing
	Schopfheim-Germany	Manufacturing
	Fogliano-Italy	Manufacturing
	Lonate Pozzolo-Italy	Manufacturing
	Monza-Italy	Manufacturing
	Parma-Italy	Manufacturing
	Vignate-Italy	Manufacturing
Tampere-Finland	Manufacturing	
Industrial Technologies and Services: Asia Pacific (ITS-AP)	Wujiang, China	Manufacturing
	Shandong, China	Manufacturing
Power Tools and Lifting	Changzhou, China	Manufacturing



Table 4. Ingersoll Rand Sites Generating Renewable Electricity, CY 2022

Business Unit	Location	Facility Type
Power Tools and Lifting	Sahibabad, India	Manufacturing
Industrial Technologies and Services: Europe, Middle East, India, and Africa (ITS-EMEIA)	Naroda (Plant 1)-India	Manufacturing
	Parma-Italy	Manufacturing
	Schopfhiem, Germany	Manufacturing
	Vignate, Italy	Manufacturing
Precision Science and Technologies	Wuxi, China	Manufacturing

Table 5. Summary of Ingersoll Rand’s Safety Performance Metrics at Operationally Controlled sites, CY 2022

Safety Data Parameter ^{5.1}	Data	Unit
DART Rate: Employees ^{5.2}	0.52	Cases Per 200,000 Hours
DART Rate: Contractors	0.07	Cases Per 200,000 Hours
DART Rate: Employees + Contractors	0.48	Cases Per 200,000 Hours
TRIR Rate: Employees ^{5.3}	0.71	Cases Per 200,000 Hours
TRIR Rate: Contractors	0.49	Cases Per 200,000 Hours
TRIR Rate: Employees + Contractors	0.69	Cases Per 200,000 Hours
Number of Fatalities: Employees	0	Cases
Number of Fatalities: Contractors	0	Cases
Number of Fatalities: Employees + Contractors	0	Cases
Occupational Illness Frequency Rate: Employees	0.03	Cases Per 200,000 Hours
Occupational Illness Frequency Rate: Contractors	0.00	Cases Per 200,000 Hours
Occupational Illness Frequency Rate: Employees and Contractors	0.03	Cases Per 200,000 Hours
Note 5.1. Safety data reported according to operational control, includes leased administrative sites and sites that were acquired and divested during the CY2022 calendar year. Note 5.2. DART (Days Away, Restricted, or Transferred) defined as number of lost time, restricted or transfer injury or illness cases x 200,000 hours/hours worked for the year. Note 5.3. TRIR (Total Recordable Injury Rate) defined as: Number of OSHA recordable injuries or illness cases x 200,000 hours/hours worked for the year.		

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;
- reviewing organizational boundaries and operational boundaries;
- completing a strategic assessment/risk analysis of each data set to determine an adequate sample;



- verifying historical GHG emissions, environmental and safety data and records at an aggregated level for the calendar year 2022; and
- Confirming that Ingersoll Rand has recalculated their base year emissions as required by their documented base year recalculation policy. Ingersoll Rand will publish the recalculated base year along with a description of changes in their sustainability report, which will be released in June 2023. LRQA did not verify the reported data and calculations of the updated 2020 base year.

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: 05/18/2023

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

Brooke Farrell
LRQA Lead Verifier
On behalf of LRQA Inc.
1330 Enclave Parkway, Suite 200 Houston, TX 7707

LRQA reference: UQA00000832/ 544902

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

The English version of this Assurance Statement is the only valid version. LRQA assumes no responsibility for versions translated into other languages.

This Assurance Statement is only valid when published with the Report to which it refers. It may only be reproduced in its entirety.

Copyright © LRQA, 2023.