



1178 Broadway, 3rd Floor
New York, NY 10001
646-499-0083

www.CarbonVerificationService.com

July 27, 2021

To the Management of Linde plc.

Carbon Verification Service, LLC was engaged by Linde plc to provide assurance of its global 2020 Key Performance Indicators (KPI) and other social metrics. 2020 was the eleventh consecutive year that Carbon Verification Service was retained by the company to verify its KPIs. (Carbon Verification Service was retained eight years by Praxair prior to the merger). Upon being retained, Carbon Verification Service conducted a conflict of interest review to ensure that its review would be free of bias and would be done on an independent basis. Carbon Verification Service provides only verification and auditing services to its clients, including Linde plc, to avoid conflict of interest concerns. Carbon Verification Service is not owned or operated by any other entity.

The objective of the verification was to provide limited assurance of the reported KPI values and to assess the accuracy, completeness, relevance, consistency and transparency of Linde plc's information and assertions. Carbon Verification Service assessed conformance of Linde plc's GHG emission inventory with The Greenhouse Gas Protocol.

The verification protocol employed for verification of Linde plc's 2020 GHG emissions was **ISO 14064-3 (2006): Specification with guidance for the validation and verification of greenhouse gas assertions**, and is consistent with the requirements for ISAE 3000. Consensus protocols for the verification of the KPI metrics, other than GHG emissions, do not currently exist. Carbon Verification Service utilized the same verification principles prescribed by ISAE 3000 to guide the verification of this data.

Carbon Verification Service, LLC reviewed selected quantitative KPIs. The verification was based on desk audits of data from 59 sites that were, as in past years, selected so as to be representative of Linde plc's global geographies and businesses. In addition, two virtual site visits were conducted at air separation units in Cantarell, Mexico and PSMI in Meishan, Jiangsu, China. (The site visits were by necessity virtual in nature due to coronavirus pandemic safety precautions). We did not review all information and supporting documentation associated with the KPIs for all of Linde plc's global locations and facilities.

Carbon Verification Service, LLC also re-verified 2018 and 2019 Scope 2 GHG emissions, steam consumption, NOx emissions and water consumption.

Linde plc management is responsible for the reported KPIs and for the process of assembling the data upon which the reported KPI values are based.

Based upon the verification work performed from March through July 2021, there is no evidence that Linde plc's KPI data assertions, which appear in the table below, are not materially correct and are not a fair representation of data and information and have not been prepared in accordance with accepted standards and practice.

For Carbon Verification Service, LLC

A handwritten signature in black ink that reads "James J. Groome".

James J. Groome
President

LINDE PLC'S ASSERTIONS

Linde plc reported the following eKPI values:

Metric	Restated Values 2018	Restated Values 2019	2020 Value	Units of Measure
GHG Emissions Scope 1			16,247,000	Metric Tons CO2e
GHG Emissions Scope 2 (market-based)	22,332,941.6	22,250,261.2	20,969,000	Metric Tons CO2e
Proportion of reported Scope 1 and 2 emissions verified			100%	%
Year-over-Year Change - Scope 2 Emissions (market-based, versus 2019)			-5.8	%
GHG Emissions Scope 3 - Contractor Driving			562,000	Metric Tons CO2e
Total Electricity Consumption			41,622,000	MWh
Active Renewable Electricity Consumption*			2,493,000	MWh
Passive Renewable Electricity Consumption*			9,176,000	MWh
Other Low Carbon Electricity Consumption (nuclear)*			4,750,000	MWh
Fossil fuel-based Electricity Consumption*			25,203,000	MWh
Steam Consumption	5,943,000	6,012,000	6,357,000	MWh
Non-renewable Fuel Consumption			21,298,000	MWh
Non-renewable Energy Consumption			66,784,000	MWh
NOx Emissions	10,003	10,596	12,030	Metric Tons
SOx Emissions			790	Metric Tons
VOC Emissions			1,053	Metric tons
Total Non-hazardous Waste Generated			65,700	Metric tons
Non-hazardous Waste Used/ Recycled/Sold			34,900	Metric tons
Non-hazardous Waste Disposed			30,800	Metric tons
Total Hazardous Waste Generated			24,900	Metric tons
Total (Solid + Hazardous) Waste Not Landfilled from Zero Waste Program			150,000,000	Pounds
Municipal fresh water withdrawal	54,100,000	58,920,000	56,600,000	Cubic meters
Fresh surface water withdrawal	446,100,000	386,286,000	361,198,000	Cubic meters
Fresh ground water withdrawal	11,945,000	10,792,000	10,100,000	Cubic meters
Fresh once-through cooling water returned to surface water sources	419,652,000	354,833,000	334,800,000	Cubic meters
Total net fresh water consumption	92,493,00	101,165,000	93,073,000	Cubic meters
Chemical Oxygen Demand		2,129	2,007	Metric Tons
Fatalities, Employees			0	
Fatalities, Contractors			1	
Employee Lost Time Injury Frequency Rate			0.245	Lost time injuries per 200,000 hours worked
Employee Lost Time Injury Frequency Rate			1.224	Lost time injuries per 1,000,000 hours worked
Occupational Illness Frequency Rate			0.001	Occupational

				Illness Cases per 200,000 hours worked
Occupational Illness Frequency Rate			0.006	Occupational Illness Cases per 1,000,000 hours worked
Contractor Lost Time Injury Frequency Rate (Construction Contractor Groups)			0.09	Lost time injuries per 200,000 hours worked
Contractor Lost Time Injury Frequency Rate (Construction Contractor Groups)			0.043	Lost time injuries per 1,000,000 hours worked
Tier 1 Process Safety Events			0.035	Number of Events per 200,000 hours worked
Tier 1 Process Safety Events			0.175	Number of Events per 1,000,000 hours worked
Community Engagement: cash raised or donated by employees and facilities.			800,000	USD
Community Engagement: cash raised or donated by employees and facilities, and including in kind donations.			\$1.3 million	USD

*These eKPI metrics were not fully verified; they are calculated from the verified total electricity consumption value.