

# Greenhouse Gas Emissions Inventory

(prepared in accordance with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard and incorporating ISO 14064-1:2019 reporting requirements)

**Optima Systems UK**  
**FY 2022-2023**

## Document History

Version	Date	Author	Approved
1.0	02/06/2023	P. Gooden	S. Dann
2.0	13/12/2023	P. Gooden	

## 1 REPORT DETAILS

Has this inventory been verified by an accredited third party?
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (if yes, fill in verifier contact information below and attach verification statement)
Date of verification:
Verifier:
Email:
Phone:
Address:

Person or entity responsible for the report
Paul Gooden (Optima Contracting Limited)

Have any facilities, operations and/or emissions sources been excluded from this inventory? If yes, please specify.
<p>This is an 'Optima Systems UK' report only combining Optima Contracting Limited, Optima Products Limited and Optima Installations Limited. All non-UK operations are excluded.</p> <p>Scope 1 - Mobile combustion emissions: transport of materials in vehicles owned/controlled by Optima are excluded.</p> <p>Scope 1 – Process emissions: it is not anticipated that manufacturing processes at the UK factory (Radstock) release GHG emissions however this has not yet been demonstrated.</p> <p>Scope 3 - Only leased offices/facilities are included for category 8 (except London Showroom) and category 3c (T&amp;D losses) are included - all other Scope 3 emission categories are excluded.</p>
Reporting period covered by this inventory
From 01/02/2022 to 31/01/2023

## 2 ORGANIZATIONAL BOUNDARIES

Which consolidation approach was chosen (check each consolidation approach for which your company is reporting emissions). If your company is reporting according to more than one consolidation approach, please complete and attach an additional completed reporting template that provides your company's emissions data following the other consolidation approach(es).

Equity Share <input checked="" type="checkbox"/>	Financial Control <input type="checkbox"/>	Operational Control <input type="checkbox"/>
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## 3 OPERATIONAL BOUNDARIES

Are scope 3 emissions included in this inventory?

yes   
no

If yes, which types of activities are included in Scope 3 emissions?

Only Category 8 (Upstream leased assets: leased offices/facilities) and Category 3c (grid electricity transmission and distribution losses) are included at this time.

## 4 INFORMATION ON EMISSIONS

The table below refers to emissions independent of any GHG trades such as sales, purchases, transfers, or banking of allowances.

EMISSIONS	TOTAL (mtCO <sub>2e</sub> )	CO <sub>2</sub> (mt)	CH <sub>4</sub> (mt)	N <sub>2</sub> O (mt)	HFCs (mt)	PFCs (mt)	SF <sub>6</sub> (mt)
Scope 1	520.38	519.38	0.71	0.29	-	-	-
Scope 2	174.93	172.97	0.72	1.24	-	-	-
Scope 3 (OPTIONAL)	26.87	26.58	0.11	0.18			

Direct CO<sub>2</sub> emissions from Biogenic combustion (mtCO<sub>2</sub>).

None

## 6 BASE YEAR

Year chosen as base year							
2021-22 (first year to include gas and electricity for both High Wycombe and Radstock)							
Clarification for any significant emissions changes that trigger base year emissions recalculations							
Leased offices' (Aberdeen, Manchester) and project sites' electricity use moved from Scope 2 to Scope 3.8 in v2.							
Context for any significant emissions changes that trigger base year emissions recalculations							
This energy usage is recategorized as 'Upstream leased assets' rather than 'owned or controlled' electricity use.							
Base year emissions							
EMISSIONS	TOTAL (mtCO <sub>2</sub> e)	CO <sub>2</sub> (mt)	CH <sub>4</sub> (mt)	N <sub>2</sub> O (mt)	HFCs (mt)	PFCs (mt)	SF <sub>6</sub> (mt)
Scope 1	511.03	510.08	0.70	0.28	-	-	-
Scope 2	173.41	171.63	0.65	1.12	-	-	-
Scope 3 (OPTIONAL)	25.62	25.37	0.10	0.16			

## 7 METHODOLOGIES AND EMISSION FACTORS

**Methodologies used to calculate or measure emissions other than those provided by the GHG Protocol. (Provide a reference or link to any non-GHG Protocol calculation tools used).**

### Data collection

Monthly natural gas (Scope 1 emissions) and electricity (Scope 2 emissions) kWh usage invoice data are recorded in the 'Optima GHG Emissions Records & Monitoring' spreadsheet. Manual monthly meter readings are taken for locations where energy utility invoices are not available. Where readings (manual or supplied) cover periods longer than one month (e.g. 6 month billing) the total period usage is allocated on a daily pro-rata method to estimate monthly usage.

Total energy usage for shared office locations has been allocated to occupying businesses based on a NIA floor area pro-rata basis. Energy (scope 3) usage for Manchester office and project sites estimated based on equipment loads; typical usage factors and weather conditions.

Scope 1 fugitive emissions from refrigerant systems (i.e. mechanical cooling systems) are calculated from the measured charge (kg) of refrigerant needed to replace system leakage as recorded during system annual service maintenance.

### Calculations of emissions

Monthly energy usage data are multiplied by the relevant Carbon Factor in the 'UK Government GHG Conversion Factors for Company Reporting' (condensed set)

2022 to convert energy use (kWh) to emissions (kgCO<sub>2e</sub>)  
(<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022>)

GWP factors for GHGs are based on the IPCC Fourth Assessment Report (AR4 - 2007) to align with the UK Government reporting [CO<sub>2</sub> = 1, CH<sub>4</sub> = 25, N<sub>2</sub>O = 298].

Reporting

Emissions data are verified in the GHGP Emissions Calculator Tool.

## 8 ORGANIZATIONAL BOUNDARIES

List of all legal entities or facilities over which reporting company has equity share, financial control or operational control	% equity share in legal entity	Does reporting company have financial control? (yes/no)	Does reporting company have operational control? (yes/no)
Optima Contracting Ltd (OCL)	100%	Yes	Yes
Optima Installations Ltd (OIL)	100%	Yes	Yes
Optima Products Ltd (OPL)	100%	Yes	Yes
Optima Products Asia SDN BHD (OPA) *	100%	Yes	Yes
Optima Systems Asia Pacific Pte Ltd (OSAP) *	100%	Yes	Yes
Optima Systems International DMCC *	100%	Yes	Yes
Optima Partitions LLC *	100%	Yes	Yes
Optima Partitions Trading & Contracting LLC *	100%	Yes	Yes
Jalapeno Trading *	65%	Yes (65%)	Yes (1/3 joint)
OAG Ltd (OAG) *	100%	Yes	Yes

\* Company under the control of a wholly-owned subsidiary of Hexa Group Holdings Ltd and not included in this reporting scope due to regional group divisions or branding reasons.

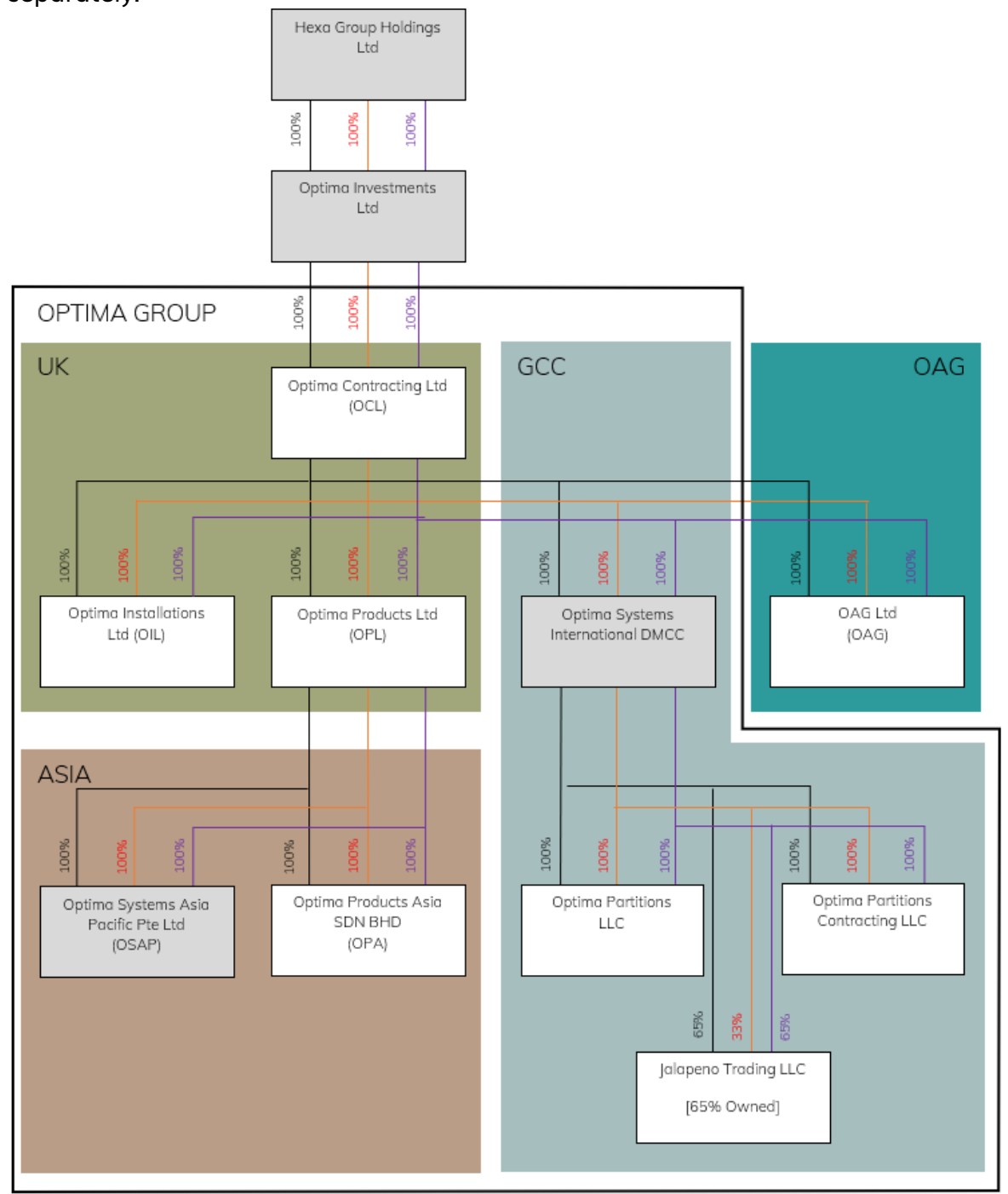
**If the reporting company's parent company does not report emissions, include an organizational diagram that clearly defines relationship of the reporting subsidiary as well as other subsidiaries.**

The reporting company is Hexa Group Holdings Ltd. This GHG emissions inventory report is for the 'Optima Systems UK' region of the Group only. This is one of three regions of the 'Optima Group' as illustrated below.

'Optima Systems UK' consists of Optima Contracting Ltd (OCL) and its two UK subsidiaries: Optima Installations Ltd (OIL) and Optima Products Ltd (OPL).

'Optima Asia' and 'Optima GCC' regions (encompassing additional subsidiaries as illustrated below) are not reported.

OAG Ltd (outside of the 'Optima Group' boundary) reports GHG emissions separately.



**Criteria determined by the organization to define significant emissions**

All measured Scope 1 and 2 emissions are deemed significant

## 9 INFORMATION ON EMISSIONS

Emissions disaggregated by source types	
<b>Scope 1: Direct Emissions from Owned/Controlled Operations</b>	<b>(mtCO<sub>2</sub>e)</b>
a) Direct Emissions from Stationary Combustion	520.38
b) Direct Emissions from Mobile Combustion	No data
c) Direct Emissions from Process Sources	No data
d) Direct Emissions from Fugitive Sources	0.00
e) Direct Emissions from Agricultural Sources	Not applicable
<b>Scope 2: Indirect Emissions from the Use of Purchased Electricity, Steam, Heating and Cooling</b>	<b>(mtCO<sub>2</sub>e)</b>
a) Indirect Emissions from Purchased/Acquired Electricity	174.93
b) Indirect Emissions from Purchased/Acquired Steam	Not applicable
c) Indirect Emissions from Purchased/Acquired Heating	Not applicable
d) Indirect Emissions from Purchased/Acquired Cooling	Not applicable

Emissions disaggregated by facility (recommended for individual facilities with stationary combustion emissions over 10,000 mtCO <sub>2</sub> e)		
Facility	Scope 1 emissions (mtCO <sub>2</sub> e)	Scope 2 emissions (mtCO <sub>2</sub> e)
Aberdeen	None	None (accounted in Scope 3.1)
High Wycombe	13.10	12.51
Livingstone	None	0.02
Manchester	None	None (accounted in Scope 3.1)
New Rock	None	2.00
Radstock	507.28	160.41
Project sites	None	None (accounted in Scope 3.1)

Emissions disaggregated by country	
Country	Emissions (specify Scopes included)
UK	695.31 mtCO <sub>2</sub> e (Scope 1 & 2 included)
'Asia'	Not in scope
'GCC'	Not in scope

Emissions attributable to own generation of electricity, heat or steam that is sold of transferred to another organization.
N/a

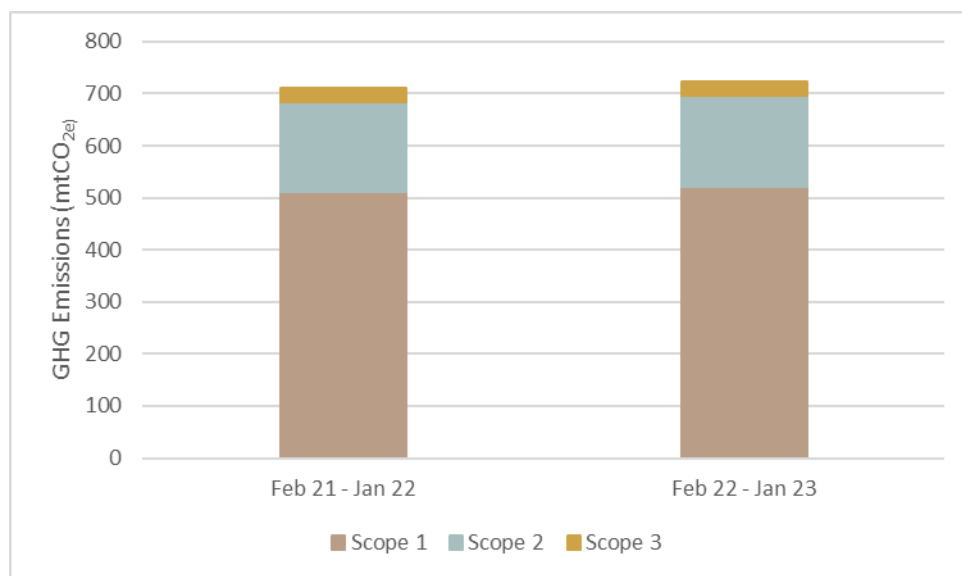
Emissions attributable to the generation of electricity, heat or steam that is purchased for re-sale to non-end users.
N/a

Emissions from GHGs not covered by the Kyoto Protocol (e.g., CFCs, NOx).
Not accounted

**Information on the causes of emissions changes that did not trigger a base year emissions recalculation (e.g., process changes, efficiency improvements, plant closures).**

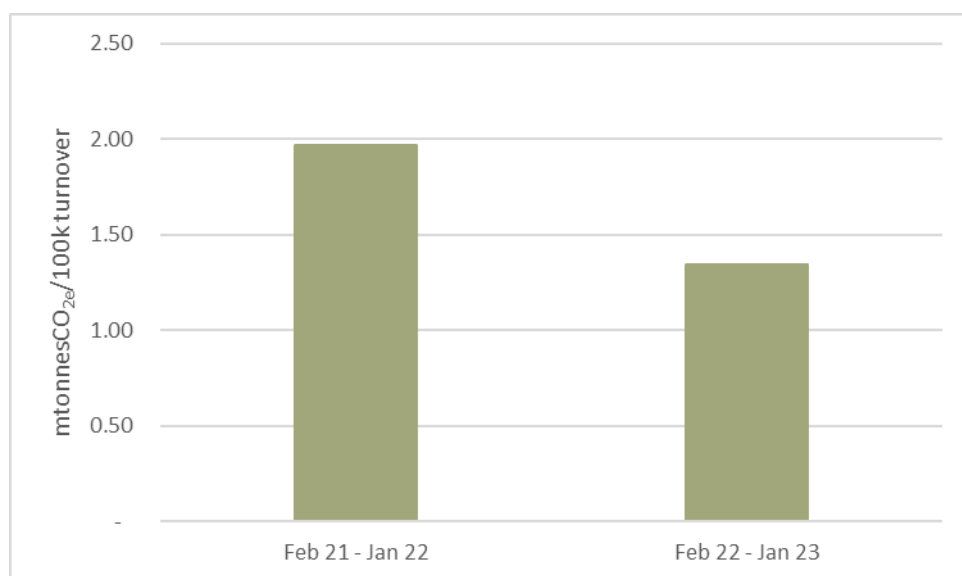
Manufacturing production increased during this reporting period (1<sup>st</sup> Feb 2022 – 31<sup>st</sup> Jan 2023) driving a divisional turnover increase of 27%. A 2.5% increase in gas usage and a 10% increase in electricity was measured at the Radstock facility as a result. Increased use of air-conditioning due to extreme summer (2022) weather conditions also contributed.

**GHG emissions data for all years between the base year and the reporting year (including details of and reasons for recalculations, if appropriate).**



**Relevant ratio performance indicators (e.g. emissions per kilowatt-hour generate, sales, etc.).**

2022-23 Scope 1 & 2 emissions = 1.34 mtCO<sub>2e</sub>/100k turnover





**An outline of any GHG management/reduction programs or strategies.**

A GHG accounting management system to meet the Greenhouse Gas Protocol and ISO 14064-1 standards is in development.

Emissions reduction programs are focused presently at Radstock including investment in sub-metering; voltage optimization; air-source heat pumps and efficiency improvements like upgrading insulation. A large Photovoltaic (PV) array is to be installed during FY2023-24.

## 10 ADDITIONAL INFORMATION

**Information on any contractual provisions addressing GHG-related risks and obligations.**

N/a

**An outline of any external assurance provided and a copy of any verification statement, if applicable, of the reported emissions data.**

N/a

**Information on the quality of the inventory (e.g., information on the causes and magnitude of uncertainties in emission estimates) and an outline of policies in place to improve inventory quality.**

Uncertainty assessments have not taken place at this time. Uncertainty cannot be quantified.

**Information on any GHG sequestration.**

No GHG sequestration has occurred in this reporting period.

## 11 INFORMATION ON OFFSETS

Information on offsets that have been purchased or developed outside the inventory boundary.		
Quantity of GHGs (mtCO <sub>2</sub> e)	Type of offset project	Were the offsets verified/certified and/or approved by an external GHG program (e.g., CDM)
N/a	N/a	N/a

Information on reductions inside the inventory boundary that have been sold/transferred as offsets to a third party.		
Quantity of GHGs (mtCO <sub>2</sub> e)	Type of offset project	Were the offsets verified/certified and/or approved by an external GHG program (e.g., CDM)
N/a	N/a	N/a