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GHG INVENTORY VERIFICATION REPORT

Virupaksha Organics Limited · FY 2025-26 ·

Parameter	Details
Document	GHG Inventory Verification Package – FY 2025-26
Reporting organisation	Virupaksha Organics Limited – Corporate Office and Units I–VI
Reporting period	01 April 2025 – 31 March 2026
Version / date	Rev-01 · Dt 06-10-2026
Status	Submitted
Inventory standards	ISO 14064-1:2018; GHG Protocol Corporate, Scope 2 and Scope 3 Standards
Verification standard requested	ISO 14064-3:2019
Assurance level requested	Limited assurance
Verification boundary	Scope 1, Scope 2 (location- and market-based) and Scope 3 Categories 1–7, 9 and 12
Consolidation approach	Operational control
Industry sector	Bulk drug intermediates and active pharmaceutical ingredients (APIs)
Inventory prepared by	Mr K Sandeep Reddy- Director/Dy. CEO (ESG & Sustainability)
Verification body	QRO Certifications LLP

1. Purpose

This package gives the independent verification body what it needs to plan and carry out a limited-assurance verification of VOL's FY 2025-26 GHG inventory to ISO 14064-3:2019. It sets out:

- the organisation, boundary and inventory results as reported;
- the criteria, methods and emission factors used;
- the evidence available for each source and who holds it;
- a risk-based sampling plan and materiality hotspots;
- known issues VOL is closing before the verification;
- the internal controls in place and the representations management will provide.

2. Organisational profile

Site	Address	Principal activity / emission sources
Corporate Office (incl. R&D centre)	Plot B1 & B2, IDA Gandhinagar, Kukatpally, Medchal-Malkajgiri, Hyderabad 500037, Telangana	Administration, R&D laboratory; DG set, company cars
Unit-I	Survey No. 10, Gaddapotharam, Jinnaram Mandal, Sangareddy 502319, Telangana	API manufacturing; coal and biomass boilers, DG, LPG, vehicles
Unit-II	Plot 30–33, Phase-I, IDA Pashamylaram, Patancheru Mandal, Sangareddy 502307, Telangana	API manufacturing; coal and biomass boilers, DG, LPG, vehicles, buses
Unit-III	Plot 100 P(2), Humnabad Industrial Area, Bidar 585330, Karnataka	Very low activity in FY 2025-26 (5,100 kWh, no fuel)
Unit-IV	Plot A1, Survey No. 10, Gaddapotharam, Jinnaram Mandal, Sangareddy 502319, Telangana	Intermediates; coal and biomass boilers, DG, vehicles
Unit-V	Plot 272, 273, 280, 281, IDA Pashamylaram, Patancheru Mandal, Sangareddy 502307, Telangana	API manufacturing; coal boiler, DG, LPG, vehicles
Unit-VI	Plot 106(B) & 107, Humnabad Industrial Area, Gadwanthi, Humnabad Taluk, Bidar 585330, Karnataka	API manufacturing; coal boiler, DG, LPG, vehicles; wheeled renewable power

Base year: FY 2025-26 (first complete inventory).

3. Inventory as reported (unverified)

Scope	Reported (unverified) tCO2e	Share
Scope 1	23,864	18.7%
Scope 2 – location-based	16,383	12.8%
Scope 3	87,503	68.5%
Total	**127,749**	**100%**
Memo: Scope 2 – market-based (10,000 MWh I-RECs and wheeled RE at zero)	8,830	–
Memo: Total – market-based	120,196	–

3.1 Scope 1

Source	Activity data (FY 2025-26)	tCO2e	Share of Scope 1
Coal – boilers	12,206 t	23,126	96.9%
Diesel – DG sets	113,499 L	303	1.3%
Diesel – company vehicles	50,146 L (estimate / records)	136	0.6%
Biomass – boilers (CH4, N2O)	3,451 t (biogenic CO2 6,029 t outside scopes)	102	0.4%
Petrol – company vehicles	19,239 L	46	0.2%
LPG	2.2 t	7	0.0%
Fugitive – refrigerant top-ups (Unit-I)	R-32 60 kg; R-134a 20 kg; other 30 kg (valued as R-410A)	145	0.6%
Fugitive – SF6, CO2 extinguishers; other sites	Not recorded	Not quantified	–
Total Scope 1		**23,864**	**100%**
Memo: HCFC-22 (R-22), Unit-I, 60 kg – Montreal Protocol gas, outside Scope 1	60 kg	118	–

3.2 Scope 2

Item	Activity data	tCO2e
Grid electricity – 7 sites (DISCOM bills)	23,080,760 kWh	15,580
Wheeled wind/solar power – Unit-VI (open access)	1,190,214 kWh	803
I-RECs redeemed for VOL (Evident registry; devices RRSNES10001, ZELMES10001; consumption period 1 Jan – 31 Dec 2025) – market-based only	10,000,000 kWh	0 (market-based); −6,750 vs grid
Total Scope 2 – location-based (CEA FY 2025-26, 0.675 kgCO2/kWh)	**24,270,974 kWh**	**16,383**
Total Scope 2 – market-based (I-RECs and wheeled power at zero; remaining DISCOM supply at CEA factor)		8,830

3.3 Scope 3

Category	tCO2e	Share of Scope 3
1. Purchased goods and services	62,211	71.1%
2. Capital goods	13,909	15.9%

Category	tCO2e	Share of Scope 3
3. Fuel- and energy-related activities	8,244	9.4%
4. Upstream transportation and distribution	1,799	2.1%
5. Waste generated in operations	101	0.1%
6. Business travel	298	0.3%
7. Employee commuting (partial)	142	0.2%
9. Downstream transportation and distribution	790	0.9%
12. End-of-life of sold products	10	0.0%
8, 10, 11, 13, 14, 15	Not relevant / not applicable / excluded – see summary report	–
Total Scope 3	**87,503**	**100%**

4. Verification scope

Limited assurance over Scope 1, Scope 2 (location-based and market-based) and Scope 3 Categories 1–7, 9 and 12, for all seven sites. Excluded and not-applicable categories (8, 10, 11, 13, 14, 15), the fugitive-emission gap at sites other than Unit-I and the biogenic CO2 memo are disclosed with their justifications in the GHG Inventory Summary FY 2025-26.

5. Criteria

Standard / reference	Purpose in this inventory
ISO 14064-1:2018	Organisational GHG quantification and reporting
ISO 14064-3:2019	Verification requirements (for the verifier)
GHG Protocol Corporate Standard and Scope 2 Guidance	Scope 1 and 2 accounting; dual Scope 2 reporting
GHG Protocol Scope 3 Standard and Technical Guidance (2013)	Scope 3 screening, methods and exclusions
IPCC 2006 Guidelines, Vol 2	Fuel net calorific values and CO2, CH4, N2O factors
IPCC AR6 WG1 (2021)	GWP-100 values
India NATCOM / BUR country-specific values	Indian non-coking coal NCV and CO2 factor
CEA CO2 Baseline Database (FY 2025-26)	Grid electricity factor
DESNZ-type conversion factors	Freight, business travel and well-to-tank factors (indicative)
Indicative cradle-to-gate and EEIO factor sets	Scope 3 Categories 1 and 2 (to be replaced by supplier and licensed data)

6. Methodology by source

Source / category	Method type	Calculation file and sheet
Scope 1 combustion (coal, biomass, diesel, LPG)	Activity-based (fuel × NCV × factor)	Scope 1 & 2 Group workbook (Rev 2) – Activity Data, Scope 1 Calc, Emission Factors
Scope 1 vehicles	Activity-based (litres; km × mileage where litres unavailable)	Scope 1 & 2 Group workbook (Rev 2) – Company Vehicles
Scope 1 refrigerants	Mass balance (kg charged × AR6 GWP)	Scope 1 & 2 Group workbook (Rev 2) – Refrigerant Log
Scope 2	Activity-based (kWh × CEA factor); market-based with contractual instruments (I-RECs, wheeled RE) at zero	Scope 1 & 2 Group workbook (Rev 2) – Scope 2 Calc
Cat 1 raw materials and imports	Average-data (mass × cradle-to-gate)	Scope 3 Rev 7 – RM Purchase Data, RM Item Map, Imports Data, Cat 1
Cat 1 engineering / services; Cat 2	Hybrid (mass-based and spend-based EEIO)	Scope 3 Rev 7 – Eng & Services Spend Data, Cat 1, Cat 2
Cat 3	Activity-based (WTT; T&D losses)	Scope 3 Rev 7 – Cat 3
Cat 4 and Cat 9	Distance-based (tonne-km × mode factor)	Scope 3 Rev 7 – Eng Transport Data, Imports Data, Cat 9 Sales Calc
Cat 5	Waste-type-specific	Scope 3 Rev 7 – Cat 5
Cat 6	Distance-based (flight legs, cabin class) and hotel nights	Scope 3 Rev 7 – Cat 6 Travel Data, Cat 6 Flight Legs
Cat 7	Fuel-based (contracted buses)	Scope 3 Rev 7 – Cat 6-15
Cat 12	Waste-type-specific (packaging proxy)	Scope 3 Rev 7 – Cat 6-15

7. Evidence register

#	Emission source	Evidence the verifier had sampled	Custodian	Status
1	Coal (Scope 1; 57.5% of Scope 1 + 2)	Boiler logbooks / daily coal consumption; Singareni invoices with GCV and grade; weighbridge slips; monthly stock statement (opening, receipts, closing)	Unit Utilities / Stores / Accounts	Available

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#	Emission source	Evidence the verifier had sampled	Custodian	Status
2	Biomass briquettes	Supplier invoices; weighbridge slips; boiler fuel logs	Unit Utilities / Stores	Available
3	DG diesel	Diesel purchase invoices; DG run-hour and fuel logs; stock register	Unit Electrical / Stores	Available
4	LPG	Cylinder purchase invoices	Admin / Canteen / QC	Available
5	Company vehicles	Vehicle asset register; fuel cards or fuel bills; trip / log books	Admin / Accounts	Partly available
6	Refrigerants, SF6, CO2 extinguishers	AC / chiller AMC service reports (kg charged per gas); HT breaker records; extinguisher refilling invoices	Engineering / Safety	Available
7	Grid electricity	12 monthly DISCOM bills per site (TSSPDCL / Karnataka ESCOM); meter readings	Unit Electrical / Accounts	Available
8	Wheeled renewable power (Unit-VI)	Open-access approval; monthly wheeling and banking statements; generator invoices; REC / attribute clause	Unit-VI / Corporate Finance	Available
8a	I-RECs (10,000 MWh)	Evident registry redemption statement(s) naming VOL as beneficiary; certificate serial ranges, device, technology and production period; NVNR Power & Infra letter	Corporate Finance / ESG	Letter available; redemption statement – collect
9	Solar plant (~5 MW)	Purchase deed; generation and consumption records	Corporate Engineering	Available
10	Production	Monthly production reports; GST returns; Unit-IV and Unit-V reconciliation	Production Planning / Finance	Available
11	Cat 1 raw materials	ERP GRN register (6,010 lines); imports bills of entry; sample invoices for top 20 materials	Purchase / Stores / EXIM	Available
12	Cat 1 and Cat 2 spend	Purchase-order register with taxable values (21,455 lines); fixed-asset register	Purchase / Finance	Available
13	Cat 4 and Cat 9 freight	GRN distance data; imports routes (POL / POD / ICD); sales register with destinations and mode; freight invoices	Logistics / EXIM / Marketing	Available

#	Emission source	Evidence the verifier had sampled	Custodian	Status
14	Cat 5 waste	Form-IV / Form-V returns; TSDF and co-processing manifests; scrap sale invoices	Unit EHS / Accounts	Available
15	Cat 6 business travel	Travel-agent statement Apr-25 to Mar-26; hotel invoices; other expense claims	HR / Admin / Accounts	Partly available
16	Cat 7 commuting	Bus-contract diesel records; commuting survey	HR / Admin	Partly available

8. sampling plan

Area	sampling	Reason
Sites for visit	Unit-I Unit-II & Unit-VI (in person); Unit-V, Unit-IV and Corporate Office (remote)	Unit-I and II = 64% of total; Unit-VI holds wheeled RE; HO holds group records
Coal	3 months per visited site traced from boiler log → stock → invoice; GCV from invoices	Largest single source (96.9% of Scope 1)
Electricity	3 bills per site, all sites; Unit-VI wheeling statements for 3 months; I-REC redemption statements (all)	Second-largest source (Scope 2 = 41% of Scope 1 + 2)
Diesel and LPG	2 months per visited site	Small; completeness check against purchases
Cat 1 raw materials	Top 20 materials by tCO2e plus 25 random GRN lines; 10 import bills of entry	Cat 1 = 71% of Scope 3
Cat 2 capital goods	15 largest fixed-asset / capital orders	Cat 2 = 16% of Scope 3
Scope 3 other categories	Recalculation of each category total; 5 records each	Each < 10% of Scope 3

9. Materiality and hotspots

VOL proposes a quantitative materiality threshold of 5% of total reported emissions (≈ 6,390 tCO2e) for the limited-assurance engagement. The five largest sources make up 93% of the total.

Emission source	tCO2e	Significance
Cat 1 – purchased raw materials (incl. imports)	57,165	Very high
Scope 1 – coal	23,126	Very high
Scope 2 – grid electricity	16,383	High
Cat 2 – capital goods	13,909	High

Emission source	tCO2e	Significance
Cat 3 – fuel- and energy-related	8,244	Medium

10. Internal controls

- Integrated management system certified to ISO 9001, ISO 14001, ISO 45001, ISO 50001 and ISO 27001 for all sites (certification body: QROCERT); ISO 37001 certified.
- ERP-based purchase orders and goods-receipt notes, with unit-wise registers for raw materials and engineering purchases.
- Monthly DISCOM electricity bills per site; statutory hazardous-waste returns (Form-IV / Form-V) per unit.
- Calculation workbooks with separated inputs, emission-factor tables and formulas, so every figure traces to its activity data.
- Unit-wise energy audits of Units I–VI and the Corporate Office for FY 2025-26.
- Gap: no energy sub-metering (steam, compressed air, nitrogen) and a refrigerant log at Unit-I only – listed as open items.

11. Management representations to be provided

VOL's management will sign a representation letter to the verifier confirming that:

- The activity data provided are complete for all sites under operational control for FY 2025-26.
- No material sources, sites or events affecting emissions have been omitted beyond the disclosed exclusions.
- Invoices, logbooks and registers made available are genuine and complete.
- Management accepts responsibility for the GHG inventory and its underlying data.

12. Exclusions

Exclusions follow the GHG Protocol Scope 3 Standard (Chapters 5, 6 and 11) and ISO 14064-1:2018 (clauses 5.2.2, 5.2.3 and 9.3.1). Each exclusion and its justification is listed in the GHG Inventory Summary FY 2025-26 (items E-1 to E-12).

13. Selecting the verification body

- Accredited to ISO 14065 for GHG validation and verification /recognised by the programme the statement is for (EcoVadis accepts statements from accredited or recognised verifiers).
- Independent of VOL: the body and its team must not have prepared the inventory or provided GHG.
- Competence in chemical / pharmaceutical manufacturing, Indian grid factors and Scope 3 Standard methods.
- Deliverables: a verification statement to ISO 14064-3:2019 stating the assurance level, materiality threshold, boundary verified and any qualifications.

15. Supporting documents

1. Annual GHG Inventory Report FY 2025-26 (ISO 14064-1)
2. VOL Scope 1 & 2 GHG Inventory FY 2025-26 – Group (Excel)
3. VOL Scope 3 GHG Inventory FY 2025-26 – (Excel)
4. Source data: RM GRN register, imports file, engineering and services purchase register, sales register, vehicle list, travel-agent statement, Form-IV / Form-V returns, DISCOM bills

16. Contacts and approval

Role	Name	Designation	Signature and date
Reviewed & Approved by	K. Sandeep Reddy	Director / Dy. CEO (ESG & Sustainability)	
Verification body	P Krishna Kumar	Lead verifier, QRO Certifications LLP	