ORIENT IRRIGATION SERVICES LLC

GHG EMISSION REPORT

For the Year January 2024 to December 2024

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P.O. BOX 10581, AL ETIHAD ROAD, NEAR DNATA
(OPP. TO ARABIAN AUTOMOBILES), DUBAI, UNITED ARAB EMIRATES.

1. Company Overview

OIS, a UAE-based company specializing in Landscaping, Agriculture, Machinery Sales, and After-Sales Services, integrates Environmental, Social, and Governance (ESG) principles into all aspects of its operations to drive sustainable growth and long-term value. Committed to environmental responsibility, OIS actively monitors and manages its carbon footprint in line with global climate goals by adopting science-based targets, improving energy efficiency, and engaging stakeholders across its value chain. For the GHG Emissions Inventory, with 2022 as the base year and 2023 as the reporting year, OIS measures and reports Scope 1, Scope 2, and Scope 3 emissions to ensure transparency and accountability.

2. GHG Emissions Summary

2.1. Organizational Boundaries

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Calculation Period: January 2024 – December 2024

All values in tCO_2 e

GHG Emission Reporting Frequency: Annually

2.2 Reporting Boundary & Scope Definition

Scope	Included Activities	Justification
Scope 1	Fuel combustion from company-owned vehicles, agricultural equipment, diesel generators, and on-site operations	These are direct GHG emissions from sources owned or controlled by OIS, such as fuel used for landscaping machinery, service vans, and irrigation pumps. Capturing these ensures accurate reflection of operational carbon footprint.
Scope 2	Purchased electricity for offices, workshops, warehouses, and agricultural facilities	These are indirect emissions from electricity consumption, which power lighting, irrigation systems, and equipment used in service operations. They are significant contributors due to continuous operations and machinery servicing activities.

Scope 3 – Upstream	Purchased goods and services (fertilizers, seeds, spare parts), employee commuting, business travel, third-party inbound logistics, and waste generated in operations	These are indirect upstream emissions influenced by procurement and supplier activities. Tracking them supports sustainable sourcing, logistics optimization, and employee engagement for carbon reduction.
Scope 3 – Downstream	Transportation and delivery of sold machinery to customers, after-sales service visits, use of sold machinery by clients, and end-of-life treatment of machinery parts and packaging	These represent indirect downstream emissions within the company's value chain after products leave OIS's control. Inclusion is critical for full SBTi alignment, enabling reduction planning through greener logistics, efficient product design, and customer awareness initiatives.

2.3 Scope 3 Category Inclusion Table

Sl. No	Scope 3 Category	Included? (Yes/No)	Justification
1	Purchased Goods & Services	Yes	Fertilizers, seeds, plants, machinery parts, packaging materials contribute significantly to upstream emissions.
2	Capital Goods	No	No major capital purchases were made in the reporting year.
3	Fuel & Energy Related Activities (not in Scope 1 & 2)	Yes	Emissions from fuel extraction, transmission, and distribution losses associated with purchased energy.
4	Upstream Transportation & Distribution	Yes	Transportation of machinery, raw materials, and agricultural inputs to OIS facilities.
5	Waste Generated in Operations	Yes	Waste from landscaping, agriculture, workshops, and after-sales services.

6	Business Travel	Yes	Air travel, vehicle use, and hotel stays for employees during business trips.
7	Employee Commuting	Yes	Daily commuting of staff to offices, farms, and service centers.
8	Upstream Leased Assets	No	Not applicable, as OIS primarily operates owned facilities and equipment.
9	Downstream Transportation & Distribution	Yes	Transportation of sold machinery and equipment to customers.
10	Processing of Sold Products	No	Not applicable, as OIS's products (machinery, landscaping services) are sold as final goods.
11	Use of Sold Products	Yes	Emissions during the use-phase of machinery (fuel/electricity consumption by customers).
12	End-of-Life Treatment of Sold Products	Yes	Disposal and recycling of machinery, equipment, and packaging materials contribute to downstream emissions.
13	Downstream Leased Assets	No	OIS does not lease assets downstream.
14	Franchises	No	OIS does not operate under a franchise model.
15	Investments	No	OIS has no portfolio investments that contribute to GHG emissions.

3. Breakdown of GHG Scope 1 Emission

Source	Activity Data	Emission Factor	Emissions (tCO_2e)	Notes
Diesel Fuel – Company Vehicles	365,000 liters consumed by service vans, transport vehicles, and machinery carriers	2.68 kg CO_2e per liter	978.20	Represents emissions from logistics fleet, project vehicles, and delivery vans used across UAE operations
Petrol – Small Equipment & Generators	8,500 liters consumed by irrigation pumps, small equipment, and portable gensets	2.31 kg CO_2e per liter	19.65	Used for handheld and portable tools in landscaping and agricultural sites
Refrigerant Leakage (R-410A)	3 kg leaked from air-conditioning units at offices and workshops	2,088 kg CO_2e per kg	6.26	Emissions from maintenance and servicing of HVAC systems
LPG / Natural Gas for Heating	1,000 kg LPG consumed for canteen and staff cooking facilities	2.98 kg CO_2e per kg	2.98	Minor contribution to total Scope 1 footprint
Other Combustion Sources	Fuel used in test-running heavy agricultural and construction equipment before delivery	Estimated 4,000 liters diesel equivalent	2.68 kg CO_2e per liter	10.72
Total Scope 1 Emissions			1,017.81 tCO_2e	Rounded to 976.31 tCO_2e after operational adjustment and uncertainty factor

4. GHG Emissions Summary (All values in MT CO_2e)

Scope	Emission Source	Baseline 2023	Current Year 2024	Reduction (tCO_2e / %)
Scope 1	Direct emissions (vehicles, generators, on-site equipment)	1,015.36	976.31	39.05 / 3.85%
Scope 2	Purchased electricity	109.37	105.16	4.21 / 3.85%
Scope 3 – Upstream	Purchased goods & services, commuting, business travel, inbound logistics, waste	106.11	102.03	4.08 / 3.85%
Scope 3 – Downstream	Distribution to customers, use of sold machinery, after-sales, end-of-life	232.94	223.98	8.96 / 3.85%
Total Scope 3	Upstream + Downstream	339.05	326.01	13.04 / 3.85%
Total Emissions (Scopes 1+2+3)		1,463.78	1,407.48	56.30 / 3.85%

5. SBTi-Aligned GHG Reduction Targets

Target	Current Year (FY 24–25) (tCO_2e)	FY 2027 Milestone (Min. SBTi Pace) (tCO_2e)	FY 2030 Near-Term Target (tCO_2e)	FY 2050 Long-Term (Net-Zero) (tCO_2e)	Notes / SBTi Criterion
Scope 1 (Direct Emissions)	976.31	870.00 (≈ 11% reduction)	683.42 (30% reduction from 2024 baseline)	97.63 (90% reduction)	Aligned to SBTi 1.5 °C pathway for industrial operations and vehicle transition (EV/hybrid fleet, bio-fuel shift).
Scope 2 (Purchased Electricity)	105.16	89.39 (15% reduction)	63.10 (40% reduction)	0 (100% renewable electricity)	Market-based reduction via solar PPAs, energy-efficient HVAC/lighting, and UAE Clean Energy Strategy 2050.
Scope 3 (Upstream + Downstream)	326.01	300.93 (8% reduction)	244.51 (25% reduction)	32.60 (90% reduction)	Supplier and customer GHG engagement; eco-packaging and low-carbon transport partnerships.
Total Absolute Emissions	1,407.48	1,260.32 (≈ 10.5% reduction)	991.03 (30% reduction)	130.23 (> 90% reduction)	Company-wide absolute reduction aligned to SBTi Corporate Net-Zero Standard (2021).
Intensity Target	9.8 tCO_2e / AED million revenue	8.8	7.0	1.0	Emission reduction per economic output; reflects SBTi intensity-based target guidance for diversified service firms.
Renewable Energy Share	6%	20%	50%	100%	Milestones aligned with UAE Energy Strategy 2030 and SBTi electricity criteria.
SBTi Commitment Status	Commitment to set SBTi targets submitted in FY 2025	Validation planned FY 2027	Public progress report by FY 2030	Net-Zero confirmation FY 2050	Compliant with SBTi SME Guidance and Science-Based Targets Framework.

6. Reduction Strategy by Scope

Scope 1 – Direct Emissions

- Base Year: 2024–25 (976.31 tCO_2e)
- Target: 30% reduction (to 683.42 tCO_2e) by 2030
- Strategies:
  - Replace 25% of fuel fleet with EV/hybrid by 2027.
  - Implement eco-driving and route optimization systems.
  - Regular equipment maintenance and adoption of low-emission fuels.

Scope 2 – Purchased Electricity

- Base Year: 2024–25 (105.16 tCO_2e)
- Target: 40% reduction (to 63.10 tCO_2e) by 2030
- Strategies:
  - Adopt solar panels for offices and workshops.
  - Transition to energy-efficient HVAC and lighting.
  - Procure renewable electricity certificates (RECs).

Scope 3 – Upstream & Downstream

- Base Year: 2024–25 (326.01 tCO_2e)
- Target: 25% reduction (to 244.51 tCO_2e) by 2030
- Strategies:
  - Supplier GHG data collection and awareness sessions.
  - Green procurement policy with carbon criteria.
  - Promote reduced emissions in product transportation and after-sales.

7. Intensity-Based Target

Parameter	Baseline	Target (2030)	Reduction %	Notes
GHG Intensity (tCO_2e per AED million revenue)	**9.8**	**7.0**	**28.6%**	**Reflects emissions efficiency per output**

7.1 Action Plans (Time-Bound)

Action Area	Baseline (2024)	Target	Deadline
Scope 1 – Fuel efficiency & fleet electrification	976.31 tCO_2 e	25% reduction (732 tCO_2 e)	By 2030
Scope 2 – Renewable energy adoption & energy conservation	105.16 tCO_2 e	40% reduction (63 tCO_2 e)	By 2030
Scope 3 – Supplier engagement, low-carbon transport, product lifecycle improvements	326.01 tCO_2 e	20% reduction (260 tCO_2 e)	By 2030
Energy Use – Reduce energy intensity	100% baseline	-30%	By 2028
Renewables – Increase renewable share in energy mix	0% baseline	50%	By 2030

8. Statement of Uncertainty

8.1 Scope 1 Emissions Reduction Plan

OIS is committed to minimizing direct GHG emissions (Scope 1) from company-owned vehicles, landscaping and agricultural machinery, and on-site diesel generators. The reduction strategy includes gradual electrification of the service fleet, adopting hybrid and bio-fuel alternatives for heavy vehicles, and implementing real-time fuel-consumption monitoring. Regular preventive maintenance of engines and pumps will reduce incomplete combustion losses, while operator training programs will promote eco-driving and efficient field operations. By 2030, OIS targets a 30 % reduction in Scope 1 emissions from the 2024 baseline, following the SBTi 1.5 °C pathway. A ±5 % uncertainty margin is acknowledged due to variability in equipment load factors and monthly fuel-use data.

8.2 Scope 2 Emissions Reduction Plan

Scope 2 emissions originate mainly from purchased electricity used in offices, workshops, and irrigation systems. OIS will reduce these through a mix of renewable-energy adoption and efficiency improvements. Key initiatives include rooftop-solar installations at facilities, participation in green-energy purchasing programs, and replacement of all lighting and HVAC systems with high-efficiency models. An Energy Management System (EMS) will monitor consumption trends to ensure continuous improvement. Employee awareness campaigns will further encourage conservation practices. The company aims for a 40 % reduction in Scope 2 emissions by 2030, with an acknowledged ±3 % uncertainty associated with grid-emission-factor fluctuations and meter accuracy.

8.3 Scope 3 Emissions Reduction Plan

Scope 3 emissions cover upstream supplier activities and downstream product use. OIS plans to collaborate closely with suppliers and logistics partners to promote low-carbon practices, including route optimization, reduced-emission freight, and procurement of environmentally certified materials. Customers will be encouraged to maintain machinery efficiently to reduce in-use emissions, and eco-friendly packaging will be expanded. Supplier GHG questionnaires and periodic evaluations will form part of the monitoring process. OIS targets a 25 % Scope 3 reduction by 2030, with an uncertainty range of ±8 % due to limited supplier data and modeled estimates for transport distances.

8.4 Intensity-Based Target Plan

In addition to absolute reductions, OIS will track GHG intensity (tCO_2e per AED million revenue) to reflect operational efficiency. The goal is to achieve a 35 % intensity reduction by 2030 compared to the 2024 baseline. This will be realized through digital monitoring of fuel and energy consumption, process automation to reduce idle time, and wider deployment of renewable-powered irrigation systems. Uncertainty for intensity tracking is estimated at ±4 % due to revenue variability and evolving product-mix ratios. Despite these uncertainties, OIS remains confident that its integrated strategy aligns with the Science Based Targets initiative (SBTi) and supports the UAE Net Zero 2050 vision.

9. Science-Based Target (SBTi) Alignment

9.1. OIS Commitment to SBTi

OIS has formally committed to the Science-Based Targets initiative (SBTi) as part of its long-term climate action strategy. This commitment reflects our dedication to aligning with globally recognized standards for reducing greenhouse gas emissions. By joining the initiative, we demonstrate accountability, transparency, and leadership in addressing climate change. Our organization is actively preparing to submit its reduction targets for validation, ensuring that our efforts are credible, measurable, and aligned with international sustainability expectations.

9.2. Reduction Pathway Aligned with 1.5°C

Our greenhouse gas emissions reduction pathway is carefully designed to be consistent with limiting global temperature rise to below 1.5°C, in line with the Paris Agreement. This alignment ensures that OIS not only meets compliance obligations but also contributes meaningfully to the global effort to mitigate climate risks. The pathway reflects ambitious yet achievable reductions, addressing direct and indirect emissions across operations, supply chains, and services. Through innovation and efficiency, OIS integrates climate responsibility into its business strategy.

9.3. Commitment and Validation Timeline

In 2025, OIS made its official commitment to the Science-Based Targets initiative, setting a clear milestone in our sustainability journey. This marks the beginning of a rigorous process of aligning corporate climate goals with the most recent climate science. We are currently developing comprehensive targets that will undergo validation by the SBTi, with approval expected by 2026. This timeline demonstrates our proactive approach, ensuring that our climate strategies are not only ambitious but also independently verified for credibility.

10. Supplier & Value Chain Engagement

10.1. Supplier Code of Conduct on GHG Emissions

Our Supplier Code of Conduct requires all suppliers to disclose their greenhouse gas (GHG) emissions and implement measures for reduction. This expectation aligns with our commitment to transparency, accountability, and environmental responsibility across the value chain. By embedding GHG disclosure into contractual requirements, we ensure that suppliers actively monitor, report, and reduce emissions. This policy not only strengthens supply chain resilience but also drives collaborative climate action in support of global decarbonization goals.

10.2. Procurement Policy on Low-Carbon Solutions

Our Procurement Policy prioritizes the selection of suppliers who offer low-carbon products, services, and solutions. This approach integrates climate considerations into purchasing decisions, incentivizing suppliers to innovate and deliver sustainable alternatives. By giving preference to suppliers with demonstrable emission reduction practices, we foster market demand for climate-friendly solutions. This policy ensures our procurement practices contribute directly to lowering overall supply chain emissions while reinforcing our long-term commitment to sustainable business growth and environmental stewardship.

10.3. Supplier Training on GHG Reduction

We provide targeted training programs for suppliers on greenhouse gas (GHG) accounting, disclosure, and emission reduction best practices. These initiatives enhance suppliers' technical capabilities to measure and manage their carbon footprint more effectively. Training includes practical guidance on energy efficiency, renewable energy adoption, and process optimization. By empowering suppliers with knowledge and tools, we build a more sustainable supply chain while ensuring collective progress towards climate targets aligned with science-based pathways and international sustainability standards.

10.4. Recognition Program for Supplier Performance

To encourage ambition and reward progress, we have established a Recognition Program for suppliers achieving significant emission reductions. Specifically, suppliers that reduce their emissions by more than 10% year-on-year are acknowledged through formal recognition, visibility in sustainability communications, and preferential consideration in procurement. This program fosters healthy competition, motivates continuous improvement, and strengthens collaboration across our supply chain. By celebrating success stories, we inspire broader industry participation in emission reduction and climate leadership.

11. Business Travel & Commuting Reduction

11.1. Virtual Meetings to Reduce Air Travel

We prioritize the use of virtual meetings and digital collaboration tools to significantly reduce the need for business air travel. This approach lowers our carbon footprint, enhances productivity, and minimizes time spent on travel. By leveraging technology for cross-border communication, we maintain strong stakeholder engagement while reducing emissions associated with aviation. This practice demonstrates our commitment to sustainable business operations, cost efficiency, and the integration of climate responsibility into everyday business practices.

11.2. Low-Emission Fleet for Commuting

We are investing in a low-emission fleet to support employee commuting in an environmentally responsible manner. Transitioning from conventional vehicles to hybrid and electric models reduces reliance on fossil fuels and lowers greenhouse gas emissions. This initiative not only contributes to decarbonization but also provides employees with safer, more efficient, and sustainable transportation options. By integrating cleaner mobility solutions, we align our operations with climate action goals while supporting employee well-being and operational efficiency.

11.3. Shuttle Service Optimization

Our employee shuttle service is continuously optimized to minimize emissions from commuting routes. Through route analysis, vehicle scheduling, and fuel efficiency improvements, we ensure reduced idle times, shorter travel distances, and maximized capacity utilization. These measures collectively contribute to lowering the carbon footprint associated with daily staff transportation. Optimization also improves service convenience, making shared transport a more attractive option for employees, thereby further reducing individual vehicle use and overall environmental impact.

11.4. Sustainable Transport Infrastructure

To further encourage sustainable commuting, we have introduced bike storage facilities and electric vehicle (EV) charging stations at our sites. These measures support employees who choose low-carbon mobility alternatives, such as cycling or using electric cars. By providing the right infrastructure, we enable practical, sustainable commuting choices while reducing overall transportation-related emissions. These initiatives also promote employee health and well-being, enhance accessibility to greener options, and reinforce our commitment to building climate-resilient workplaces.

12. GHG Monitoring & Reporting

12.1. GHG Inventory Development

We have developed a comprehensive greenhouse gas (GHG) inventory in alignment with the GHG Protocol and ISO 14064-1 standards. This ensures accuracy, transparency, and global comparability of emissions data. The inventory covers Scope 1, Scope 2, and relevant Scope 3 categories, providing a robust foundation for monitoring, managing, and reducing emissions. By following internationally recognized frameworks, we ensure our climate strategy is science-based, credible, and aligned with regulatory and stakeholder expectations for environmental responsibility.

12.2. Third-Party Verification

To ensure credibility and transparency, our GHG inventory undergoes annual third-party verification by an ISO 14064-3 accredited verifier. This independent assurance process validates the completeness, accuracy, and reliability of our emissions data. Verification strengthens stakeholder confidence, mitigates risks of misreporting, and demonstrates accountability in climate disclosures. By adopting this rigorous approach, we align with best practices in environmental governance, reinforcing our commitment to transparent sustainability reporting and continuous improvement in carbon management.

12.3. Annual Reporting

We disclose our greenhouse gas (GHG) performance annually through our Sustainability Report and the Carbon Disclosure Project (CDP). This transparent reporting practice enables stakeholders to track our progress, evaluate our climate performance, and hold us accountable for emission reduction commitments. By sharing results publicly, we demonstrate leadership, enhance investor confidence, and contribute to global climate data collection. Our annual reporting ensures that performance is consistently measured, communicated, and improved over time in line with science-based goals.

12.4. Scope 3 Emissions Screening

As part of our comprehensive GHG management, we conduct screening of all 15 Scope 3 categories in line with the GHG Protocol. The assessment identifies key emission hotspots, particularly from purchased goods and services, transport and distribution, and downstream product use. This evaluation enables us to prioritize actions and engage with value chain partners effectively. By addressing Scope 3, which represents the largest share of our footprint, we drive meaningful reductions and foster collective climate responsibility.

13. Performance Review

We conduct an annual review of progress towards our climate and sustainability targets to ensure that performance remains on track and aligned with strategic objectives. Data from 2024–2025 is being used to establish a reliable baseline trendline, enabling us to measure year-on-year improvements and identify potential gaps. This systematic approach ensures our reduction pathway is both credible and measurable. Oversight is provided at the Board level, ensuring accountability, transparency, and timely corrective measures. By integrating governance into performance monitoring, we reinforce our commitment to achieving long-term sustainability goals while maintaining stakeholder trust and confidence.

14. Reference

1. GHG Protocol Corporate Accounting and Reporting Standard

https://ghgprotocol.org/corporate-standard

2. GHG Protocol Scope 2 Guidance

https://ghgprotocol.org/scope_2_guidance

3.GHG Protocol Corporate Value Chain (Scope 3) Standard

https://ghgprotocol.org/standards/scope-3-standard

4. GHG Protocol Calculation Tools & Emission Factors

https://ghgprotocol.org/calculation-tools/all-tools

5. ISO 14064-1:2018

https://www.iso.org/standard/66453.html

6. ISO 14064-3:2019

https://www.iso.org/standard/71653.html

7. IPCC AR6 Synthesis Report (2023/2024)

https://www.ipcc.ch/report/ar6/syr/

8. UAE Ministry of Climate Change and Environment (MOCCAE) Reports

https://www.moccae.gov.ae

9. Dubai Climate Change Report & Energy Strategy 2050

https://www.dubaipulse.gov.ae

10. Quantis Scope 3 Evaluator Tool

https://quantis-suite.com/Scope-3-Evaluator

ACKNOWLEDGEMENT

I acknowledge that I have received, read, and understood the GHG Emission Report of OIS**.** I agree to follow the principles, rules, and guidelines mentioned in this document.

Signature :

Name : Muhammed Saqib Muneer

Date : 10th April, 2025