DIGITAL ENERGY ENGINEERING SERVICES W.L.L (GROUP)

BUILDING NO. 113, ZONE NO. 25, STREET NO. 220, BRING ROAD, P.O.BOX NO. 30237,
DOHA, QATAR

GHG EMISSION REPORT

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GHG EMISSION REPORT

1. EXECUTIVE SUMMARY

DIGITAL ENERGY ENGINEERING SERVICES W.L.L (GROUP), referred to in this report as DEES, is based in Doha, Qatar. Its stated activities include electrical testing and commissioning of high-, medium- and low-voltage substations; engineering support; supply of qualified field-service resources; maintenance contracting; rental of advanced testing equipment and special tools; general trading of electrical materials and test equipment; and electromechanical contracting.

This report presents the provisional greenhouse gas (GHG) inventory for the period 1 January 2025 to 31 December 2025. The supplied checklist identifies 2025 as the baseline year and reports aggregate emissions of 329.45 tCO_2e for Scope 1, 170.42 tCO_2e for location-based Scope 2 and 225.00 tCO_2e for Scope 3.

Inventory category	Reported emissions (tCO_2e)	Share of total
Scope 1 – Direct emissions	329.45	45.45%
Scope 2 – Location-based	170.42	23.51%
Scope 2-Market based	170.42	23.51%
Scope 3 – Upstream	26.6	3.7%
Scope 3 – Downstream	198.4	27.4%
Scope 3 – Other indirect emissions	225.00	31.04%
Total	724.87	100.00%

2. INTRODUCTION

2.1 Purpose of the report

The purpose of this report is to document DEES's organizational GHG inventory for calendar year 2025, identify relevant direct and indirect emission sources, disclose the reported emissions by scope, describe the accounting approach, and establish a basis for improving data collection and managing future emissions.

2.2 Intended users

Intended users include DEES management, ESG/EHS and operations personnel, finance and procurement teams, customers requesting GHG information, business partners, and other stakeholders with a legitimate interest in the organization's GHG performance.

2.3 Reporting objectives

The inventory is prepared as a management and stakeholder-reporting exercise with reference to ISO 14064-1 and the GHG Protocol.

2.4 Reporting principles

The inventory should follow relevance, completeness, consistency, transparency and accuracy. Exclusions, estimates, assumptions, data gaps and recalculations should be documented and approved.

3. ORGANIZATION DESCRIPTION

3.1 Company profile

Legal/group name: DIGITAL ENERGY ENGINEERING SERVICES W.L.L (GROUP). Trading/short name used in this report: DEES. Registered/contact address: Building No. 113, Zone No. 25, Street No. 220, B Ring Road, P.O. Box No. 30237, Doha, Qatar.

DEES provides technical services and support for electrical power infrastructure and electromechanical works. Its activities may involve office administration, engineering and project coordination, deployment of technical personnel to customer sites, equipment and tool rental, maintenance and commissioning activities, material procurement and trading, and transport of personnel, tools and materials.

3.2 Organizational structure

Proposed role	GHG inventory responsibility
Executive management	Approve reporting boundary, inventory, exclusions and targets
GHG/ESG coordinator	Coordinate data requests, calculations, records and report updates
Facilities / Administration	Electricity, refrigerants, generators, building and water/waste records
Fleet / Transport	Fuel, owned/controlled vehicles, mileage and maintenance records
Projects / Operations	Site fuel/electricity, equipment use, project travel and subcontractor information
Procurement / Stores	Purchased materials, equipment, packaging and supplier information
HR / Administration	Employee headcount, commuting survey and business travel records
Finance	Invoices, expense claims, fuel purchases and reconciliation

3.3 Operations, facilities and boundaries

All operations, facilities of DEES group are covered.

4. REPORTING BOUNDARY

4.1 Organizational boundary

DEES account for 100% of GHG emissions from operations over which it has authority to introduce and implement operating policies.

4.2 Operational boundary

The inventory is intended to cover direct emissions (Scope 1), indirect emissions from purchased energy (Scope 2), and other relevant value-chain emissions (Scope 3).

4.3 Entities and locations covered

Boundary item	Treatment in this draft
Doha address supplied in checklist	Included
Other offices / branches / workshops / stores	Included
Customer project and commissioning sites	Included
Group subsidiaries / joint ventures	Included
Leased vehicles, buildings and equipment	Included

4.4 Scope 3 screening methodology

DEES screened the 15 GHG Protocol Scope 3 categories for potential relevance to its electrical testing and commissioning, engineering support, maintenance contracting, equipment and special-tool rental, electrical materials trading and electromechanical contracting activities. The screening is qualitative and identifies categories that may warrant quantification.

4.5 Supply Chain Screening – Categories 1 to 15

The following assessment identifies the potential sources and relative significance of each Scope 3 category for DEES. A category marked low or not significant is not automatically excluded;

Category	Scope 3 Category	Significance	Assessment
1	Purchased Goods & Services	High	Electrical cables, switchgear, transformers, panels, testing consumables, tools, spare parts, PPE, subcontracted services and other materials purchased for projects and operations.
2	Capital Goods	Medium	Purchase of durable assets such as testing and commissioning instruments, specialized tools, vehicles, IT equipment, workshop equipment and office fit-out.
3	Fuel- and Energy-Related Activities	Medium	Upstream extraction, production and transportation of fuels, and upstream emissions associated with purchased electricity not included in Scope 1 or Scope 2.
4	Upstream Transportation and Distribution	High	Transportation and distribution of purchased electrical materials, equipment, spare parts, tools and consumables from suppliers to DEES facilities or project locations by third-party carriers.
5	Waste Generated in Operations	Medium	Treatment and disposal of office, workshop and project-site waste, including metal scrap, cable offcuts, packaging, used oils, batteries, electronic waste and general waste, where generated.
6	Business Travel	Low/Medium	Employee air travel, taxis, rental vehicles, accommodation-related travel services and other work-related journeys between Qatar and domestic or international project/customer locations.
7	Employee Commuting	Medium	Daily employee transportation between home and DEES offices, workshops or project reporting locations, including private cars, company-arranged transport and public transport.

Category	Scope 3 Category	Significance	Assessment
8	Upstream Leased Assets	Low	Operation of leased offices, warehouses, vehicles or equipment not already included in DEES's Scope 1 or Scope 2 inventory; applicability depends on lease arrangements and the selected organizational boundary.
9	Downstream Transportation and Distribution	Medium	Transportation and delivery of electrical materials, testing equipment, tools and other goods sold or supplied by DEES to customers, where transport is performed by third parties and is not included in DEES's direct operations.
10	Processing of Sold Products	Low/Medium	Further installation, assembly, integration or processing of electrical materials and equipment supplied by DEES by customers or other downstream parties, where applicable.
11	Use of Sold Products	Low/Medium	Energy consumed during the operational life of electrical equipment or products sold by DEES, where DEES sells products whose use-phase emissions are relevant and attributable.
12	End-of-Life Treatment of Sold Products	Medium	Disposal, recycling or treatment at end of life of electrical materials and equipment supplied by DEES, including metal components, cables, panels, batteries and electronic equipment, where relevant data can be obtained.
13	Downstream Leased Assets	Low/Medium	Energy use and related emissions from testing equipment, special tools, vehicles or other assets rented or leased by DEES to customers, where those emissions are not included in DEES's Scope 1 or Scope 2 inventory.
14	Franchises	Not Significant / Not Applicable	No franchise operations have been identified in the activities described in the supplied company profile. Reassess if the business model changes.
15	Investments	Not Significant / To Be Confirmed	No material investment-related activities have been identified from the supplied checklist. Confirm whether DEES holds equity investments, joint ventures or other investments requiring Scope 3 reporting.

Screening conclusion: Categories 1 and 4 are assessed as high significance due to the likely importance of purchased electrical materials/equipment and their inbound logistics. Categories 2, 3, 5, 7, 9 and 12 are assessed as medium or potentially material. These ratings are screening judgments, not quantified emission results.

5. REPORTING PERIOD

Reporting period: 1 January 2025 to 31 December 2025. Baseline year: 2025, as stated in the checklist. The intended frequency is annual, with activity data collected monthly or per transaction and consolidated at least once each year. The reporting period is aligned across utility bills, fuel records, travel expenses, procurement records and waste manifests.

6. GHG Accounting Methodology

6.1 Standards and guidance

- ISO 14064-1:2018 – Greenhouse gases, Part 1: Specification with guidance at the organization level for quantification and reporting of GHG emissions and removals.
- GHG Protocol Corporate Accounting and Reporting Standard – organizational inventory principles and scope framework.
- GHG Protocol Scope 2 Guidance – location-based and market-based accounting for purchased electricity, steam, heat and cooling.
- GHG Protocol Corporate Value Chain (Scope 3) Standard – identification and assessment of relevant upstream and downstream value-chain categories.
- IPCC Guidelines for National Greenhouse Gas Inventories – relevant fuel combustion and refrigerant/global warming potential references.

6.2 Calculation approach

The general calculation method is activity data multiplied by an applicable emission factor, with conversion to carbon dioxide equivalent (CO_2e):

GHG emissions (tCO_2e) = Activity data × Emission factor × Unit conversion

Where relevant, emissions of individual gases (CO_2, CH_4, N_2O and fluorinated gases) are converted to CO_2e using the applicable 100-year global warming potential (GWP) values from the selected authoritative assessment basis. The GWP assessment basis and version must be applied consistently and disclosed.

6.3 Tools and software

The supplied data collection checklist is the only calculation/data tool evidenced in the source material. No dedicated carbon-accounting software, calculation workbook, automated meter platform or emissions database was identified. A controlled spreadsheet with locked emission-factor references, formula checks, source-document links and version control is used.

6.4 Avoiding double counting

Each emission source should be assigned once to the appropriate scope and category. For example, fuel burned in DEES-owned or operationally controlled vehicles is Scope 1; fuel burned by third-party carriers is generally Scope 3 transportation. Purchased electricity is Scope 2 for the consuming organization. Project-site electricity or fuel should be classified according to ownership, operational control and contractual arrangements.

7. EMISSION SOURCES IDENTIFICATION

The following source register is an initial screening based on DEES's described activities and the fields in the internal records.

Potential source	Typical activity data	Provisional scope / category
Diesel generators	Litres of diesel; generator logs and invoices	Scope 1 – stationary combustion
Company vehicles	Litres by fuel type; fleet logs	Scope 1 – mobile combustion
Refrigerant leakage	Refrigerant type and kg topped up	Scope 1 – fugitive emissions
LPG / natural gas / other fuels	kg, cylinders or m^3	Scope 1 – stationary combustion
Purchased electricity	kWh by meter / bill	Scope 2
Purchased materials and electrical equipment	Spend, mass, supplier/product data	Scope 3 – purchased goods and services / capital goods
Third-party freight	Tonnes, distance, mode, fuel or carrier data	Scope 3 – upstream/downstream transport
Employee commuting	Employee survey, mode, distance, days	Scope 3 – employee commuting
Business travel	Air/rail/taxi/hotel travel records	Scope 3 – business travel
Waste generated in operations	Waste mass by type and treatment	Scope 3 – waste generated in operations
Use and end-of-life of sold products	Product type, quantity and life-cycle data	Scope 3 – downstream categories, if relevant

8. GHG DATA COLLECTION AND QUALITY

8.1 Data sources and collection method

Used primary records include electricity invoices and meter readings; fuel invoices and generator logs; fleet fuel cards and mileage records; refrigerant service and top-up records; procurement invoices and supplier product data; freight invoices and shipment records; employee commuting surveys; travel claims and booking reports; waste manifests and contractor invoices; and records for equipment rented to customers.

9. EMISSION FACTORS

Emission factors are selected to match the geography, fuel or activity, technology, unit and reporting year. DEES prioritize supplier-specific or Qatar-specific factors where reliable and applicable, then use recognized international sources where local factors are unavailable.

Sl. No.	Emission source	Emission factor	Unit	Reference
1	Diesel combustion	74.10	kg CO_2/GJ	IPCC 2006
2	Petrol combustion	69.30	kg CO_2/GJ	IPCC 2006
3	LPG combustion	63.10	kg CO_2/GJ	IPCC 2006
4	Natural gas combustion	56.10	kg CO_2/GJ	IPCC 2006
5	Refrigerant R-134a	1,530	kg CO_2e/kg	IPCC AR6
6	Refrigerant R-32	771	kg CO_2e/kg	IPCC AR6
7	Refrigerant R-410A	2,256	kg CO_2e/kg	IPCC AR6
8	Refrigerant R-407C	1,908	kg CO_2e/kg	IPCC AR6
9	Refrigerant R-404A	4,728	kg CO_2e/kg	IPCC AR6
10	Sulphur hexafluoride (SF_6)	25,200	kg CO_2e/kg	IPCC AR6
11	Fossil methane (CH_4)	29.80	kg CO_2e/kg	IPCC AR6
12	Nitrous oxide (N_2O)	273	kg CO_2e/kg	IPCC AR6

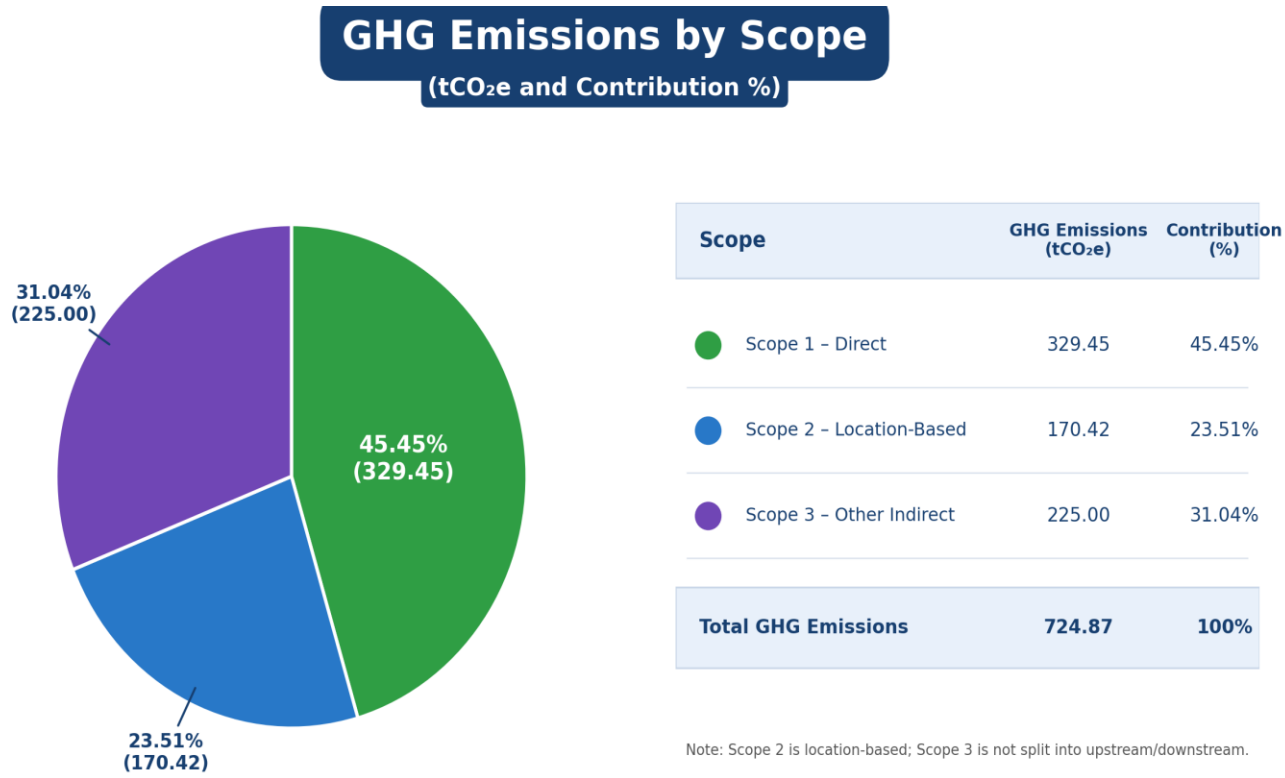
10. CALCULATION RESULTS

10.1 Total GHG emissions

Scope	Emissions (tCO_2e)	Share

Scope	Emissions (tCO_2e)	Share
Scope 1	329.45	45.45%
Scope 2 – location-based	170.42	23.51%
Scope 2 – Market-based	170.42	23.51%
Scope 3	225.00	31.04%
Total	724.87	100.00%

Total = 329.45 + 170.42 + 225.00 = 724.87 tCO_2e. The total uses the location-based Scope 2 result.



11. BASE YEAR AND TREND ANALYSIS

The 2025 is the baseline year. This is appropriate as a provisional first inventory year because it is the only reporting year provided. The baseline is formally approved after the boundary and activity data have been validated.

11.1 Base-year recalculation policy

DEES established a documented recalculation policy for significant structural changes (such as acquisitions, divestments, outsourcing or insourcing), boundary or methodology changes, material error corrections, and improvements in data or emission factors that materially affect comparability. The organization define a significance threshold and apply it consistently.

11.2 Trend reporting

From the 2026 reporting year onward, compare absolute emissions by scope and selected intensity metrics against the validated 2025 baseline

12. UNCERTAINTY ASSESSMENT

Uncertainty source	Potential effect
Scope 1	Low
Scope 2	Low
Scope 3	Medium

13. GHG REDUCTION INITIATIVES

The following measures are implemented for DEES based on its engineering, field-service, equipment-rental and contracting activities.

Area	Initiative
Fleet and field travel	Route planning, vehicle pooling, preventive maintenance, reduced idling and remote coordination where practical
Generators and site equipment	Right-size generators, avoid unnecessary running hours, maintain equipment and track site fuel
Electricity	Energy-efficient lighting and HVAC controls; switch-off practices; monitor office and workshop consumption
Refrigerants	Maintain HVAC equipment, prevent leaks, record refrigerant type and top-ups, consider lower-GWP alternatives when technically and legally suitable

Area	Initiative
Procurement	Include environmental criteria in supplier evaluation; request product footprints and lower-impact material options
Freight and logistics	Consolidate shipments, optimize delivery routes and prioritize efficient carriers
Waste	Segregate recyclable metal, cable, packaging and electronic waste; use licensed waste contractors and retain manifests
Employee engagement	Train employees on energy saving, travel planning and waste segregation

14. CONCLUSIONS AND NEXT REPORTING PLAN

In 2025 GHG inventory is 724.87 tCO_2e, comprising 329.45 tCO_2e Scope 1, 170.42 tCO_2e location-based Scope 2 and 225.00 tCO_2e Scope 3. Scope 1 represents the largest share of the reported total.

15. APPENDICES

Appendix A – Definitions and abbreviations

Term	Definition
CO_2e	Carbon dioxide equivalent; common unit for comparing GHGs using their global warming potentials
GHG	Greenhouse gas
GWP	Global warming potential over a specified time horizon
Scope 1	Direct GHG emissions from sources owned or controlled by the organization
Scope 2	Indirect GHG emissions from generation of purchased or acquired electricity, steam, heat or cooling consumed by the organization
Scope 3	Other indirect value-chain emissions not included in Scope 2
Location-based Scope 2	Scope 2 calculation using average grid emissions factors for the relevant electricity system
Market-based Scope 2	Scope 2 calculation reflecting qualifying contractual instruments and supplier-specific information
Activity data	Quantitative measure of an activity that results in GHG emissions
Emission factor	GHG emissions per unit of activity data
Operational control	Authority to introduce and implement operating policies at an operation

Appendix B – Reference Standards and Guidance

- International Organization for Standardization. ISO 14064-1:2018, Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
- World Resources Institute and World Business Council for Sustainable Development. The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition.
- World Resources Institute and World Business Council for Sustainable Development. GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard.
- World Resources Institute and World Business Council for Sustainable Development. Corporate Value Chain (Scope 3) Accounting and Reporting Standard.
- Intergovernmental Panel on Climate Change. 2006 IPCC Guidelines for National Greenhouse Gas Inventories, together with the 2019 Refinement where applicable.
- Relevant Qatar electricity emission-factor publication from the competent national authority or electricity supplier for the 2025 reporting year (to be identified and cited in the final calculation workbook).
- UK Government GHG Conversion Factors for Company Reporting (relevant annual edition), only where an appropriate Qatar-specific factor is unavailable and use of a proxy is justified.

End of the report

Prepared By: ESG committee

Approved By: General manager