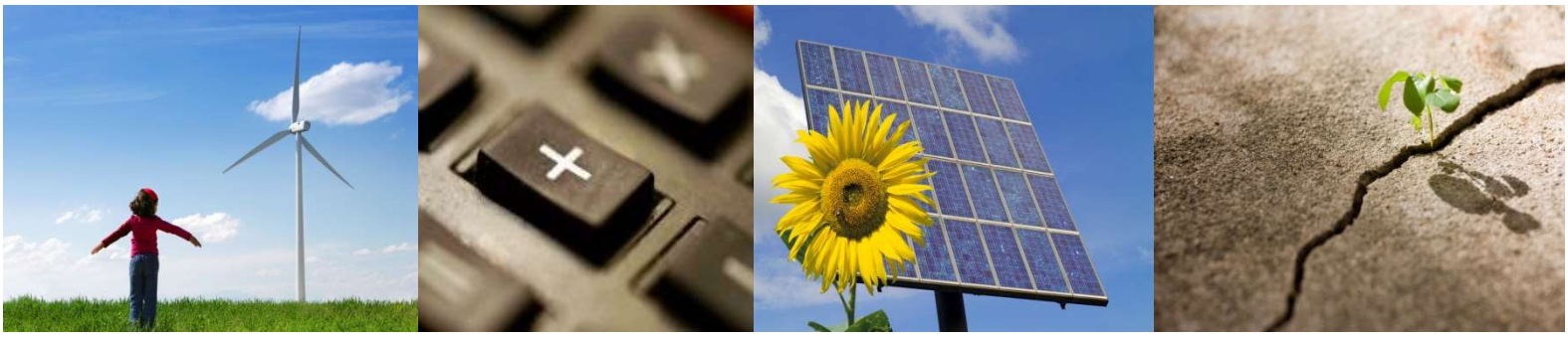
Carbon Footprint Report

Apr’2024 – Mar’2025



TAAL Tech India Pvt Ltd

04-04-2025

Ver #	Date	Reason	Prepared By	Reviewed By	Approved By
1.0	25-03-2025	Initial Release	Prabhakaran N Manager - Quality	Ranjith M DGM - Quality	Vishnu Shetty Operation Head

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Introduction

TAAL Tech India Pvt Ltd is pleased to present our 2024- 25 Carbon Footprint Report.

This carbon footprint report has been prepared in full accordance with the Greenhouse Gas Protocol (GHG), the most widely used international carbon calculation methodology, compatible with other GHG standards such as the ISO 14064, which also allows for direct integration with national and international greenhouse gas (GHG) registries.

The emitting activities covered in this carbon footprint report for (2024-25) includes direct emissions resulting from TAAL Tech India Pvt Ltd owned or controlled equipment and emissions from purchased electricity (referred to as Scope 1and 2 emissions respectively); and selected indirect emissions resulting from TAAL Tech India Pvt Ltd (referred to as Scope 3 emissions). It is important to highlight that under the GHG Protocol, the reporting of both direct emissions and indirect emissions, resulting from purchased electricity, are compulsory. All other indirect emissions, scope 3 emissions, are reported on a voluntary basis. As many voluntary emissions as possible, dependent on reliable data, have been reported on.

Section A: Required Information

Company Description

TAAL Tech is a dynamic, trusted global technology company providing excellence in Engineering and Digitalization services to customers in the United States, Canada, Europe, Middle East, and APAC regions. Our proficiency lies in empowering customers to craft and execute strategy for Engineering Design outsourcing.

Our engagement models are spread across 3 categories. We can set-up large offshore-India Design Centres (IDC) and High Value Engineering Centres (HVEC) to extend industry-specific niche capability support.

TAAL Tech has been into core product design and development services for over a decade now. We have gained deep domain expertise and developed robust design methodologies which help us to deliver innovative, end-to-end solutions. Following is the few areas of expertise.

• Design and Development, Verification, Validation, Manufacturing process, Simulation service & Embedded electronics for Aerospace and Defence, Industrial Equipment's & Products, Power, Oil & Gas, Transportation, Civil & Infrastructure and Hitech.

• IT Development & services

We at TAAL Tech are highly committed to providing High Quality, Consistent and Dependable Engineering, Embedded, and IoT Solutions. Certified for **ISO 9001:2015, EN 9100:2018, and ISO 27001:2022**, TAAL Tech ensures strict adherence to industry standards for quality and compliance. This forms the core of our Quality Policy, which dictates our work ethics, process-centric approach, attention to detail, meeting commitments, and result-oriented services.

TAAL Tech has a CSR (Corporate Social Responsibility) policy in place. Our CSR activities are spread across 4 categories namely environmental, ethical/human, philanthropic, and economic.

CSR-Policy.pdf

Organizational Boundaries

Definition: In setting organizational boundaries, a company selects an approach for consolidating GHG emissions and then consistently applies the selected approach to define those businesses and operations that constitute the company for the purpose of accounting and reporting GHG emissions.

TAAL Tech India Pvt ltd has chosen to use the "Operational Control Approach" for the purposes of consolidating and reporting GHG emissions. The reason for choosing this approach is:

- TAAL Tech delivers **design and engineering services**, likely without owning physical infrastructure.
- Under most scenarios, TAAL Tech will **control the operations** (e.g., IT infrastructure, office spaces, engineering center), but not necessarily hold an equity stake in the client's facilities.
- The **Operational Control** approach allows TAAL Tech to report GHG emissions from operations where TAAL Tech have **full authority to introduce and implement operating policies**, regardless of ownership share.

Using this approach, this Carbon Footprint Report includes emissions from the following operations:

Facility Name	Facility Address
TAAL Tech India Pvt Ltd	TAAL Tech India Private Limited, AKR Tech Park, 3rd Floor, C-Block, Krishna Reddy Industrial Area, 7th Mile Hosur Road, Bangalore, Karnataka – 560 068, INDIA

Operational Boundaries

Definition: Operational Boundaries requires choosing the scope of emissions that will be reported. There are three scopes of emissions that can be reported:

Scope 1: Direct GHG Emissions from company owned or controlled assets.

Scope 2: Indirect GHG Emissions from purchased electricity or steam.

Scope 3: Other indirect GHG Emissions from the operation of the company.

According the GHG Protocol Corporate Reporting Standard, Scope 1 and Scope 2 emissions must be reported. Scope 3 emissions are voluntary.

TAAL Tech India Pvt Ltd has reported on all Scope 1 & 2 Emissions and Scope 3.

Scope 1 Emissions

Insert List of Scope 1 Emissions

Diesel Generators - Backup generators for office buildings
Company Vehicles - Diesel used in company-owned vehicles (cars)

Scope 2 Emissions

Insert List of Scope 2 Emissions

Purchased Electricity - Lighting, computers, servers, HVAC, elevators, printers

Scope 3 Emissions

Insert List of Scope 3 Emissions

Waste Generated in Operations - Office waste (paper), e-waste recycling, toner, cafeteria waste
Business Travel - Flights
Employee Commuting - Staff travel to and from offices (cars)

Reporting Period

The reporting period for this Carbon Footprint report is: **(Apr 2024 – Mar 2025)**

Base Year

Definition: A base year allows for like to like comparisons over time and allows tracking progress to a given target. In addition, a company may undergo significant structural changes such as mergers and divestments that will significantly alter a company's emissions profile making like to like comparisons difficult. In order to maintain consistency or a like to like comparison over time, recalculating base year and previous emissions may be required if a company undergoes significant structural changes. In order to determine when a recalculation is necessary a company chooses a base year re-calculation threshold. Base year and previous year emissions are not re-calculated for organic growth and decline.

The base year of TAAL Tech India Pvt Ltd for the purposes of reporting Greenhouse Gas Emissions is: 2024 – 2025.

The reason TAAL Tech India Pvt Ltd chose this year is: It marks the beginning of the company's formal sustainability reporting journey, aligning with recent internal ESG initiatives and data availability from improved operational tracking systems implemented during this period.

Base Year Re-calculation Policy

Definition: The **threshold number** in a **Base Year Re-calculation Policy** refers to the **percentage change in emissions or business structure** that would trigger a recalculation of the base year emissions data. This ensures consistency and comparability over time in greenhouse gas (GHG) reporting.

Base Year Selection

We have selected FY 2024–2025 as our base year for GHG reporting. This year represents the start of our structured sustainability and emissions tracking efforts. It reflects a point when consistent data became available following the rollout of improved systems and processes across our operations.

Recalculation Threshold

TAAL Tech India Pvt Ltd has chosen a base year re-calculation threshold of 5%. A recalculation will be triggered if cumulative changes in emissions due to structural, methodological, or boundary changes result in a variance of 5% or more in base year emissions.

Triggers for Base Year Recalculation

Recalculations may occur under the following circumstances

- Structural changes such as mergers, acquisitions, divestitures, or outsourcing/insourcing.
- Changes in reporting boundaries (organizational or operational).
- Changes in emission calculation methodologies or improvements in data accuracy.
- Discovery of significant errors in previously reported data.

Gross Emissions Reporting

The total emissions for TAAL Tech in the reporting period of Apr'2024 – Mar'2025 are: **483303.4 Kg CO_2e**

Table 1: Total Emissions

Sl. No	Scope	Emission Source	UOM	Quantity	Emission Factor	Total Emissions (Kg CO_2e)
1	Scope 1 Direct Emissions	Company-owned vehicle (Single Vehicle – Toyota Innova)	Liters of fuel consumed	616	0.16 kg CO_2e/L	98.5
2	Scope 1 Direct Emissions	Generator (Diesel) – 300 KVA	Liters of diesel	7343	2.68 kg CO_2e/L	19680.6
3	Scope 2 Emissions **(Indirect Emissions from Purchased Electricity)**	Electricity consumption	kWh	573871	0.7 kg CO_2e/kWh	401709.7
4	Scope 3 Emissions **(Indirect Emissions)**	**Business Travel** Air travel	Miles	412866	0.13 kg CO_2e per mile	53672
5	Scope 3 Emissions **(Indirect Emissions)**	Employee commuting (Cabs)	Km travelled	15840	0.03 kg CO_2e/km	475.2
6	Scope 3 Emissions **(Indirect Emissions)**	**Waste Generated in Operations**	kg of waste	5598.07	**Refer Table 4**	7667.40

Emissions by Scope

The total emissions broken down by Scope are as follows:

Scope 1 Emissions	Scope 1 A: Company-owned vehicle (Single Vehicle – Toyota Innova) Scope 1 B: Generator (Diesel) – 300 KVA

Table 2: Scope 1 Emissions

Scope 1 A: Company-owned vehicle

Sl. No	Scope	Emission Source	UOM	Quantity	Emission Factor	Total Emissions (Kg CO_2e)
1	Scope 1 Direct Emissions	Company-owned vehicle (Single Vehicle – Toyota Innova)	Liters of fuel consumed	616	0.16 kg CO_2e/L	98.5

Bill for diesel consumption in Company owned vehicle

Sl.	Date	Purpose	Expense (Rs)
1	01-Apr-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
2	24-Apr-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
3	02-May-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
4	30-May-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
5	20-Jun-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3500
6	16-Jul-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
7	01-Aug-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3500
8	02-Oct-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3500
9	14-Oct-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3024
10	22-Oct-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
11	29-Oct-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000

12	28-Nov-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3500
13	06-Dec-24	Fuel refilled for office vehicle No MH12-RF2959 Innova	3500
14	09-Jan-25	Fuel refilled for office vehicle No MH12-RF2959 Innova	3600
15	31-Jan-25	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
16	12-Mar-25	Fuel refilled for office vehicle No MH12-RF2959 Innova	3000
17	18-Mar-25	Fuel refilled for office vehicle No MH12-RF2959 Innova	2500
18	30-Mar-25	Fuel refilled for office vehicle No MH12-RF2959 Innova	2500
Grand Total Emission			56124

Scope 1 B: Generator (Diesel)

Month	Type of Electricity	Litres Consumed (Ltr)	CO_2 eq. (kg/kwh)	Total Emissions (Kg CO_2e)
Apr-24	Diesel Generator	223.82	2.68	599.85
May-24	Diesel Generator	1606.76	2.68	4306.13
Jun-24	Diesel Generator	1498.53	2.68	4016.06
Jul-24	Diesel Generator	616.18	2.68	1651.35
Aug-24	Diesel Generator	612.35	2.68	1641.11
Sep-24	Diesel Generator	830.88	2.68	2226.76
Oct-24	Diesel Generator	627.06	2.68	1680.52
Nov-24	Diesel Generator	105.29	2.68	282.19
Dec-24	Diesel Generator	309.12	2.68	828.44
Jan-25	Diesel Generator	103.24	2.68	276.67
Feb-25	Diesel Generator	198.53	2.68	532.06
Mar-25	Diesel Generator	611.76	2.68	1639.53
Grand Total emission				19680.6

Scope 2 Emissions	Electricity consumption

Table 3: Scope 2 Emissions

Sl. No	Scope	Emission Source	UOM	Quantity	Emission Factor	Total Emissions (Kg CO_2e)
1	Scope 2 Emissions (Indirect Emissions from Purchased Electricity)	Electricity consumption	kWh	573871	0.7 kg CO_2e/kWh	401709.7

Indirect Emissions from Purchased Electricity

Month	Type of Electricity	Electricity Consumption (kwh)	CO_2 eq. (kg/kwh)	Total CO2 eq. Emission (kg)
Apr-24	Central electricity India	59270	0.7	41489
May-24	Central electricity India	52569	0.7	36798.3
Jun-24	Central electricity India	44549	0.7	31184.3
Jul-24	Central electricity India	48543	0.7	33980.1
Aug-24	Central electricity India	48511	0.7	33957.7
Sep-24	Central electricity India	47132	0.7	32992.4
Oct-24	Central electricity India	46544	0.7	32580.8
Nov-24	Central electricity India	43449	0.7	30414.3
Dec-24	Central electricity India	42071	0.7	29449.7
Jan-25	Central electricity India	40688	0.7	28481.6
Feb-25	Central electricity India	44565	0.7	31195.5
Mar-25	Central electricity India	55980	0.7	39186
Grand Total emission				401709.7

Scope 3 Emissions	Scope 3 A: Business Travel (Air travel) Scope 3 B: Employee commuting (Cabs) Scope 3 C: Waste Generated in Operations

Table 4: Scope 3 Emissions

Sl. No	Scope	Emission Source	UOM	Quantity	Emission Factor	Total Emissions (Kg CO_2e)
1	Scope 3 Emissions (Indirect Emissions)	Business Travel Air travel	Miles	412866	0.13 kg CO_2e per mile	53672
2	Scope 3 Emissions (Indirect Emissions)	Employee commuting (Cabs)	Km travelled	15840	0.03 kg CO_2e/km	475.2
Emission Source - Waste Generated in Operations						
3	Scope 3 Emissions (Indirect Emissions)	C1: Food waste	Kg waste	2006.22	0.5 kg CO_2e/kg of food waste	1003.11
4		C2: Plastic waste	Kg waste	24	2.0 (kg CO_2/kg of plastic waste)	48
5		C3: Paper waste	Kg waste	3231	2.0 (kg CO_2/kg of plastic waste)	6462
6		C4: E-waste	Kg waste	336.85	Multiple Emission factors (Refer C)	154.295

Scope 3 A: Business Travel (Air travel)

Date of Travel	Departure	Arrival	Distance Travelled (in miles)	Emission Factor Kg / miles	Total CO_2 eq. Emission (kg)
01-04-2024	Bangalore, India	Amsterdam, Netherlands	4780.83	0.13	622
13-04-2024	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
12-05-2024	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
12-05-2024	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
13-05-2024	Bangalore, India	Appleton, USA	8372.36	0.13	1088
15-05-2024	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
24-05-2024	Bangalore, India	Vancouver, Canada	7951.07	0.13	1034
25-05-2024	Bangalore, India	Vancouver, Canada	7951.07	0.13	1034
01-06-2024	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
02-06-2024	Bangalore, India	Appleton, USA	8372.36	0.13	1088
03-06-2024	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
08-06-2024	Bangalore, India	Vancouver, Canada	7951.07	0.13	1034
09-06-2024	Bangalore, India	Netherlands	4779.59	0.13	621
08-06-2024	Texas	Bangalore, India	9311.87	0.13	1211
24-06-2024	Bangalore, India	Appleton, USA	8372.36	0.13	1088
05-07-2024	Bangalore, India	LA Callaway, Georgia	9042.19	0.13	1175
07-07-2024	Bangalore, India	Baton Rouge Louisiana	9319.95	0.13	1212
06-07-2024	Netherlands	Bangalore, India	4779.59	0.13	621
07-07-2024	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
15-07-2024	Bangalore, India	Savannah GA, USA	9017.34	0.13	1172
02-08-2024	Bangalore, India	Vancouver, Canada	7951.07	0.13	1034
03-08-2024	Vancouver, Canada	Bangalore, India	7951.07	0.13	1034
03-08-2024	Vancouver, Canada	Bangalore, India	7951.07	0.13	1034
09-08-2024	Helsinki, Finland	Bangalore, India	4190.53	0.13	545
09-08-2024	Helsinki, Finland	Bangalore, India	4190.53	0.13	545

25-08-2024	Cairo, Egypt	Bangalore, India	3171.48	0.13	412
26-08-2024	Netherlands	Bangalore, India	4779.59	0.13	621
31-08-2024	Helsinki, Finland	Bangalore, India	4190.53	0.13	545
31-08-2024	Chicago, USA	Bangalore, India	8525.83	0.13	1108
07-09-2024	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
08-09-2024	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
14-09-2024	Bangalore, India	LA Callaway, Georgia	9042.19	0.13	1175
14-09-2024	Bangalore, India	Baton Rouge Louisiana	9319.95	0.13	1212
16-09-2024	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
28-09-2024	Bangalore, India	Los Angles, USA	9011.13	0.13	1171
28-09-2024	Bangalore, India	Los Angles, USA	9011.13	0.13	1171
29-09-2024	Bangalore, India	Appleton, USA	8372.36	0.13	1088
28-09-2024	Bangalore, India	Netherlands	4779.59	0.13	621
30-09-2024	Bangalore, India	Singapore	1966.64	0.13	256
26-10-2024	Vancouver, Canada	Bangalore, India	7951.07	0.13	1034
01-11-2024	Baton Rouge Louisiana	Bangalore, India	9319.95	0.13	1212
09-11-2024	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
19-11-2024	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
28-11-2024	Singapore	Bangalore, India	1966.64	0.13	256
09-12-2024	Cairo, Egypt	Bangalore, India	3171.48	0.13	412
10-01-2025	Bangalore, India	Cairo, Egypt	3171.48	0.13	412
11-01-2025	Bangalore, India	Vancouver, Canada	7951.07	0.13	1034
11-01-2025	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
22-01-2025	Bangalore, India	Amsterdam, Netherlands	4780.83	0.13	622
26-01-2025	Bangalore, India	Helsinki, Finland	4190.53	0.13	545
02-02-2025	Amsterdam, Netherlands	Bangalore, India	4780.83	0.13	622
09-02-2025	Cairo, Egypt	Bangalore, India	3171.48	0.13	412
15-02-2025	Helsinki, Finland	Bangalore, India	4190.53	0.13	545
21-02-2025	Cairo, Egypt	Bangalore, India	3171.48	0.13	412
01-03-2025	Bangalore, India	Houston, USA	9417.50	0.13	1224
01-03-2025	Houston, USA	Bangalore, India	9417.50	0.13	1224
03-03-2025	Bangalore, India	Norway	8372.36	0.13	1088
03-03-2025	Bangalore, India	Norway	8372.36	0.13	1088

08-03-2025	Bangalore, India	San Francisco, USA	8701.06	0.13	1131
14-03-2025	Norway	Bangalore, India	8372.36	0.13	1088
14-03-2025	Norway	Bangalore, India	8372.36	0.13	1088
22-03-2025	San Francisco, USA	Bangalore, India	8701.06	0.13	1131
22-03-2025	Vancouver	Bangalore, India	7951.07	0.13	1034
29-03-2025	Bangalore, India	Vancouver	7951.07	0.13	1034
29-03-2025	San Francisco, USA	Bangalore, India	8701.06	0.13	1131
29-03-2025	Vancouver	Bangalore, India	7951.07	0.13	1034
Grand Total emission					53672

Scope 3 B: Employee Commuting (Cabs)

Days / month	Distance Travelled / month (in KM)	Distance Travelled / year (in KM) (Apr' 2024 – Mar' 2025)	Emission Factor	Total CO_2 eq. Emission (kg)
22	1320	15840	0.03 kg CO_2e/km	475.2

Scope 3 C: Waste Generated in Operations

Scope 3 C1: Food Waste

Month	Sum of Food Waste (in kg)	Emission Factor kg CO_2e/kg of food waste	Total Emissions (Kg CO_2e)
Apr-24	110.3	0.5	55.15
May-24	132.02	0.5	66.01
Jun-24	129.3	0.5	64.65
Jul-24	219.1	0.5	109.55
Aug-24	186.7	0.5	93.35
Sep-24	171.7	0.5	85.85
Oct-24	199.3	0.5	99.65
Nov-24	186.8	0.5	93.4
Dec-24	188.9	0.5	94.45
Jan-25	176.8	0.5	88.4

Feb-25	150.5	0.5	75.25
Mar-25	154.8	0.5	77.4
Grand Total emission			1003.11

Scope 3 C2: Plastic Waste

Month	Plastic Waste (kg)	Emission Factor (kg CO_2/kg of plastic waste)	Carbon Emission (kg CO_2)
Apr-24	2	2	4
May-24	2	2	4
Jun-24	2	2	4
Jul-24	2	2	4
Aug-24	2	2	4
Sep-24	2	2	4
Oct-24	2	2	4
Nov-24	2	2	4
Dec-24	2	2	4
Jan-25	2	2	4
Feb-25	2	2	4
Mar-25	2	2	4
Grand Total emission			48

Scope 3 C3: Paper Waste

Month	Paper Waste (kg)	Emission Factor (kg CO_2/kg)	Carbon Emission (kg CO_2)
Apr-24	240	2	480
May-24	235	2	470
Jun-24	270	2	540
Jul-24	290	2	580
Aug-24	285	2	570
Sep-24	265	2	530
Oct-24	278	2	556

Nov-24	273	2	546
Dec-24	291	2	582
Jan-25	282	2	564
Feb-25	269	2	538
Mar-25	253	2	506
Grand Total emission			6462

Scope 3 C4: E-Waste

Description	Count	Approx. Weight per Unit (kg)	Total Weight (kg)	Emission Factor (kg CO_2e/kg)	Emissions (kg CO_2e)
Laptop with Adapter	26	2.5	65	0.6	39
Monitor	5	4.5	22.5	0.7	15.75
Docking Station with Adapter	52	1	52	0.5	26
Headset	85	0.25	21.25	0.3	6.375
Server Hard Disk	12	0.7	8.4	0.4	3.36
WS HDD(19)/Lap HDD(17)	36	0.5	18	0.4	7.2
Switches	5	3	15	0.5	7.5
Firewall	1	3.5	3.5	0.8	2.8
Router	1	2	2	0.8	1.6
Tape Drive	1	2	2	0.6	1.2
Workstation	1	12	12	0.9	10.8
Mouse	65	0.1	6.5	0.2	1.3
Keyboard	27	0.6	16.2	0.2	3.24
VGA Cables/OTG Cables (Already KG)	—	—	81	0.2	16.2
Printer	1	8	8	1.2	9.6
Modem/Actelis	1	1.5	1.5	0.7	1.05
HP Access Point	1	0.8	0.8	0.6	0.48
Fibe Air 2000 IDU-C	1	1.2	1.2	0.7	0.84
Grand Total Emissions					154.29

GHG Emissions Reduction

GHG Emissions Reduction Statement

TAAL Tech has adopted a structured and measurable approach to greenhouse gas (GHG) emissions reduction as part of our environmental, social, and governance (ESG) strategy. We commit to reducing our overall GHG emissions footprint by 15% by FY 2028, 30% by FY 2030, and achieving Net Zero by FY 2040, using FY 2024–25 as the base year.

GHG Emissions Reduction Target

Target Type	Target Reduction %
Short-term (by 2028)	15% reduction
Medium-term (by 2030)	30% reduction
Long-term (by 2040)	Net Zero

Emissions Reduction Calculation

Current Total GHG Emissions: 483303.4 Kg CO_2 e

Proposed Short-term Target for Reduction Total Emission (by 2028):

Reduce emissions by 15% → 483303.4 * 0.85

Total GHG Emissions Target (Short Term) = 410807.9 Kg CO_2 e

Individual Targets by Source

Sl. No	Emission Source	Current Emissions (kg CO_2e)	Target (15% Reduction)	Target Emissions (kg CO_2e)
1	Company-owned Vehicle (Scope 1)	98.5	NA	98.5
2	Diesel Generator (Scope 1)	19680.6	15%	16,728.5
3	Electricity (Scope 2)	401,709.7	15%	341,453.2
4	Air Travel (Scope 3)	53,672	15%	45621.2
5	Employee Commuting (Scope 3)	475.2	NA	475.2
6	Waste Generation (Scope 3)	7,667.4	15%	6,517.3

Action Plan by Emission Source

Scope 1 – Direct Emissions

- **Diesel Generator**
    - Optimize runtime
    - Invest in building energy efficiency (HVAC, lighting)

Scope 2 – Purchased Electricity

- Install rooftop solar panels
- Shift to renewable electricity suppliers (RECs or green tariffs)
- Run awareness programs for energy conservation
- Replace old lighting with LED, use energy-efficient devices

Scope 3 – Indirect Emissions

- **Business Air Travel**

- Choose lower-emission airlines or direct flights

- **Waste Generation**
  - Improve segregation and send food/e-waste to authorized recyclers
  - Compost organic waste, digitize paper record

Tracking & Reporting

- GHG targets are monitored on yearly basis for each action item
- Carbon performance review in annual sustainability report
- Internal dashboards for monthly energy and fuel tracking

Quality Management System

TAAL Tech has implemented a structured **Quality Management System (QMS)** to ensure the accuracy, consistency, and integrity of its carbon footprint assessment and sustainability reporting processes. This system is designed in alignment with global best practices such as **ISO 14064 (Greenhouse Gas Accounting)** and **ISO 9001 (Quality Management)**.

1. Governance and Oversight

- A dedicated **Sustainability Committee**, led by senior management, oversees the GHG emissions reporting.
- Responsibilities are clearly defined, from data collection and validation to final reporting and external communication.

2. Data Collection and Control

- **Standardized templates** and protocols are used to gather activity data across locations (e.g., electricity bills, fuel receipts, travel logs).
- Source data is collected from **authenticated internal systems** such as facility management logs, HR systems, and finance tools.

3. Emission Factor Management

- All emission factors are sourced from reputable national and international databases including:
    - IPCC Guidelines
    - GHG Protocol
    - Indian government sources (e.g., MoEFCC, CPCB, BEE)
- Sources are **cited and periodically reviewed** to ensure relevance and accuracy.

4. Verification and Quality Checks

- **Internal validation** steps include:
    - Cross-checking totals across departments
    - Reconciliation with utility and travel records
    - Variance analysis against previous periods

Quality Management System Contd.

- Calculations are performed using **pre-validated spreadsheets** and reviewed by an internal audit team or sustainability lead.

5. Documentation and Recordkeeping

- Detailed records are maintained for:
    - Raw data inputs
    - Assumptions and conversion factors
    - Methodologies and tools used
- Files are version-controlled and archived securely to ensure audit readiness and traceability.

6. Continual Improvement

- Regular reviews of the carbon accounting process are conducted during **management reviews**.
- **Lessons learned** from audits, data gaps, and new regulatory guidance are used to update methodologies and improve future reporting cycles.
- Staff involved in data gathering and sustainability are provided **periodic training** on GHG accounting and reporting best practices.

7. Alignment with Corporate Strategy

- The QMS is fully aligned with TAAL Tech's **Environmental, Social, and Governance (ESG)** strategy.
- Emissions data and reduction initiatives are integrated into broader operational performance reviews and goal setting.

This QMS ensures that TAAL Tech's carbon footprint is developed with integrity, transparency, and accountability—strengthening its position as a responsible and climate-conscious organization. Let me know if you'd like this formatted in a Word document or as part of a formal report.

Endnotes

Reporting Framework
This report has been prepared in accordance with the **Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)**, which classifies GHG emissions into Scope 1 (direct), Scope 2 (indirect from purchased electricity), and Scope 3 (other indirect).

Emission Factors Sources
Emission factors used in this report are primarily sourced from:

- **Intergovernmental Panel on Climate Change (IPCC)** 2006 and 2019 Guidelines
- **Central Pollution Control Board (CPCB), India**
- **Ministry of Environment, Forest and Climate Change (MoEFCC)**
- **Bureau of Energy Efficiency (BEE), India**
- DEFRA (UK Department for Environment, Food & Rural Affairs) for air travel and commuting
- GHG Protocol Scope 3 Technical Guidance

Data Collection Methodology
Activity data was compiled through a combination of:

- Energy and fuel consumption records (utility bills, generator logs)
- Employee travel and commuting surveys
- Waste logs and facility audits
- Business travel invoices and HR reports

Base Year
FY 2024–25 has been selected as the **base year** for target setting. All short-, medium-, and long-term reduction targets are benchmarked against this period.

Organizational Boundaries
The **operational control approach** has been used to define organizational boundaries, covering all offices, labs, and data centres fully operated by TAAL Tech in India.

Endnotes Contd.

Assumptions and Limitations

- Employee commuting data is based on estimated average distances and fleet data provided by vendors.
- Some Scope 3 emissions, such as upstream/downstream logistics and purchased goods and services, are currently excluded due to data limitations.
- Emissions are calculated on a **location-based approach** for electricity unless otherwise stated.

Reduction Target Setting
TAAL Tech has adopted the following GHG emission reduction targets:

- **Short-term (by 2028):** 15% reduction
- **Medium-term (by 2030):** 30% reduction
- **Long-term (by 2040):** Net Zero
  These are aligned with India's Nationally Determined Contributions (NDCs) under the Paris Agreement.

Audit and Verification
The data and calculations presented have undergone internal verification by TAAL Tech's sustainability team.

Conversion Metrics
Where applicable, CO_2 equivalent (CO_2e) emissions are presented in both **kg CO_2e** and **tCO_2e** (1 tCO_2e = 1,000 kg CO_2e) for clarity.

Future Improvements
TAAL Tech aims to expand Scope 3 coverage and improve data granularity through advanced metering, vendor engagement, and integration of sustainability KPIs into its ERP system.

Contact Information

For any queries, clarifications, or further information regarding this report or TAAL Tech's environmental sustainability initiatives, please contact:

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