

GREENHOUSE GAS INVENTORY REPORT

LB Finance PLC

FINANCIAL YEAR 2020/ 2021



This report was prepared for the sole purpose of the following authority:



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EXECUTIVE SUMMARY

Greenhouse gas emissions and the resultant global warming is an overwhelming environmental issue which was caused due to adding of greenhouse gases to the atmosphere since the industrial revolution. Reducing atmospheric emissions which result GHG effects is now a major task for industries to become more environmentally friendly and conscious.

LB Finance PLC has decided to measure its atmospheric GHG emissions for the seventh time to become more environmentally responsible and conscious business.

This report details the quantification of greenhouse gas (GHG) emissions for LB Finance PLC for the financial year (FY) 2020/ 2021 (1st April 2020 – 31st March 2021) and provides recommendations to reduce GHG emissions. The boundary of this assessment is the head office (located at No: 275/75, Pro. Stanley Wijesundara Mawatha, Colombo 07.), Corporate office (located at No. 20, Dharmapala Mawatha, Colombo 03), and 169 branches in Sri Lanka. This study quantifies and reports the organizational level greenhouse gas (GHG) emissions based on data received from LB Finance PLC in accordance with ISO 14064-1-2018 and United Nations Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5). All GHG emissions were reported as tonne of CO₂ equivalent (tCO₂e).

Reporting of GHG emissions was more comprehensive as it covered range of indirect emissions which has multiple emission sources not within the control of the organization in addition to direct emissions. Data collection from LB Finance PLC was also quite complete, but there is still room for improvement for indirect emissions data collection and reporting.

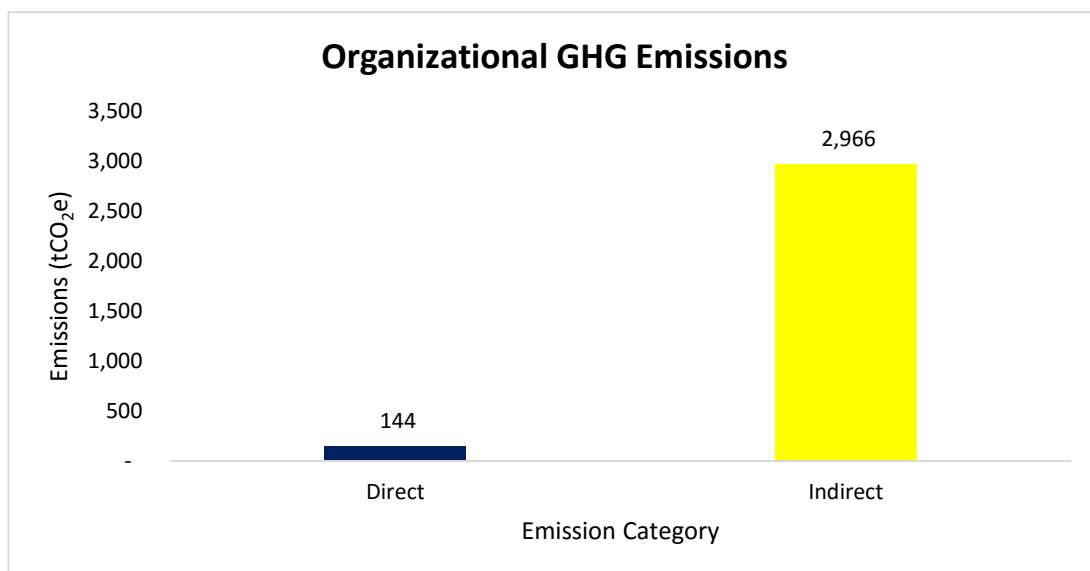


Figure 1: Emissions for FY 2020/21

As figure 1 illustrates, the total carbon footprint of LB Finance PLCC, for the year 2020/ 21 is **3,110 tCO₂e**. For the Financial year 2020/21, per capita emissions is 0.87 tCO₂e.

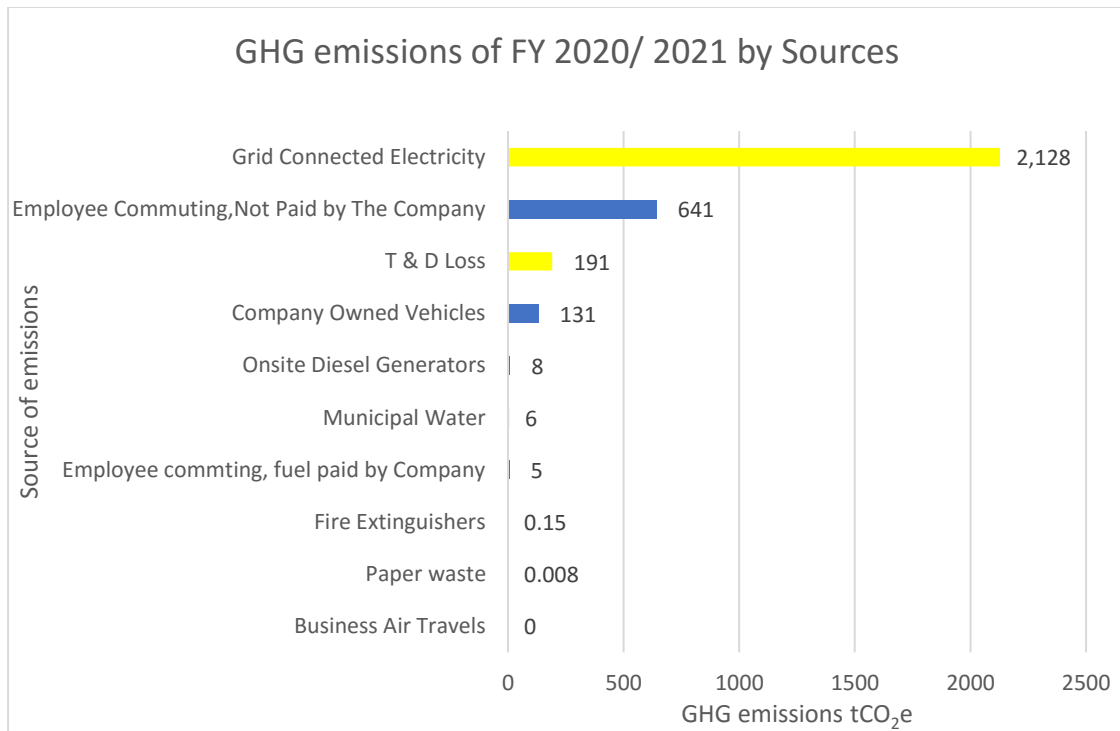


Figure 2: GHG Emissions by source in LB Finance PLC

As per figure 2, emissions due to grid connected electricity (2,128 tCO₂e, 68%), is the largest emission source, which is followed by employee commuting, not paid by the company 641 tCO₂e, 21%) and transmission & distribution loss (191 tCO₂e, 6%).

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Glossary of terms

Table 1: Glossary of terms

GHG emission source	Description
On-site diesel generators	Direct emission source attributed to use of diesel in generators.
Fire extinguishers	Direct emission source attributed to use of fire extinguishers
Refrigerant leakages	Direct emission source attributed to Refrigerant leakage
Company owned vehicles	Direct emission source attributed to company owned, prime movers, delivery vans, three-wheelers, passenger buses, vans and lorries
Employee transport paid by the company	Direct emission source attributed to employee-owned diesel and petrol vehicles which receive company fuel.
Grid connected electricity	Indirect emission source attributed to use of electricity transmitted and distributed by Ceylon electricity board
Business air travel	Indirect emission source attributed to the business air travels
Employee commuting not paid by the company	indirect emission source attributed to diesel and petrol consumption of the employee-owned vehicles which don't receive company fuel
Municipal water	Indirect emission source attributed to municipal water consumption
Waste disposal	Indirect emission source attributed to the disposal of waste
Transmission and distribution (T&D) loss	Indirect emission source attributed to the transmission and distribution loss of electricity
Waste transport	Indirect emission source attributed to waste transport

1. INTRODUCTION

Rapid rise of GHGs in the atmosphere with the industrial revolution and present bad industrial practices cause temperature increase of the globe in a way which is not accepted by the nature. Global warming negatively affects the environment in different ways such as degradation and loss of biodiversity, melting of glaciers and sea level rise, extinction of species and cause a huge risk to human wellbeing.

Quantification of GHGs released by an industry is now appeared as the best practice to take the corrective actions to mitigate the climate change. Quantification of carbon footprint provides number of key benefits to the organization:

- Get a good understanding about its impacts on climate change
- Develop key performance indicators for carbon emissions management and energy use
- Maintain a higher rank among other competitive industries showing its commitment towards sustainable business
- Meet stakeholders demand to address the imperative corporate responsibility of environmental conservation
- Develop carbon management plan to make real emission reduction through supply chain and production

This report quantifies and reports the GHG emissions under the operational control of LB Finance PLC and it has been prepared and submitted in line with Climate Smart Initiatives (Pvt) Ltd (“ClimateSI”)’s proposal dated 15th September 2020 and various discussions held between LB Finance PLC and ClimateSI.

The organizational carbon footprint for the financial year 2020/ 2021 (01st April 2020 – 31st March 2021) is covered in this report. Financial year carbon footprint provides a more recent picture of the carbon performance of the company and can be compared with the carbon footprint of other companies. The financial year carbon footprint is calculated based on the activity data provided by LB Finance PLC.

Principles of the ISO standard (ISO 14064-1 - “Specification with guidance at the organizational level for the quantification and reporting of greenhouse gas emissions and removals”) were applied while quantifying and reporting the greenhouse gas (GHG) emissions.

1.1 Introduction to the organization

LB Finance PLC is one of the leading Licensed Finance Companies in Sri Lanka. The main financial services offered by LB Finance PLC include term leasing, fixed deposits, gold loans, mortgage loans, saving, cash in mobile and money exchange.

By taking proactive steps to measure, manage, report and reduce its GHG emissions, LB Finance PLC is demonstrating leadership and commitment to address the risks associated with climate change.

1.2 Persons Responsible

Mr. Thusitha Wickrama (Assistant Manager - Integrated Reporting & Sustainability) and Ms. Madhushi Harshika (Executive- Treasury) will be responsible for ensuring the quality of GHG inventory and be responsible for implementing the GHG activities.

1.3 Dissemination policy

There is no dissemination policy whatsoever. LB Finance PLC continues the GHG inventory preparation by voluntary from 2013/14 and published the information in their annual reports and website to aware the stakeholders.

1.4 purpose of the Report

This GHG Inventory quantifies LB Finance PLC's total Greenhouse Gas (GHG) emissions for the FY 2020/2021, by accurately measuring the GHG emissions associated with its operations.

The main purpose of this report is to figure out the amount of GHG emissions during the financial year and observe the trends in GHG emissions over the past financial years. Also, this detail assessment helps the company to set emissions and emission removal targets for the next financial year or years to reduce their emissions. This report will communicate the success of the effort to reduce the impact of organizational carbon footprint to the internal and all external stakeholders.

1.5 Reporting period and frequency of reporting

This report quantifies the GHG emissions resulted in the financial year 2020/ 2021 (01st April 2020- 31st March 2021). Organization does this annually as a best practice in moving towards sustainability.

1.6 Base Year

This is the 8th consecutive year for which carbon footprint of the organization has been calculated. So the first attempt which is done in FY 2013/14 is considered as the base year. But carbon footprint values are not available for either 2013/14 FY nor for the 2014/15.

1.7 Data and information (List of GHGs account)

Greenhouse Gas emissions assessment quantifies the total greenhouse gases (GHGs) produced directly and indirectly from an organization's activities within a specified time frame. It quantifies four greenhouse gases where applicable and measures in units of carbon dioxide equivalent, or CO₂e. The seven gases are Carbon Dioxide (CO₂), Methane (CH₄) Nitrous Oxide (N₂O) and Hydrofluorocarbons (HFCs), which are identified by the Kyoto Protocol as most harmful gasses that have major impact on climate change and compulsory to report under ISO 14064-1:2018.

2. BOUNDARIES

The first step in calculation of carbon footprint is to set the boundary. This is important as it determines which sources and sinks of the organization must be included in the footprint calculation and which are to be excluded.

2.1 Setting up the organizational boundaries

ISO 14064-1:2018 standard allows the setting of organizational boundaries on either the control approach or the equity shareholding approach. According to the control approach, all emissions and removals from the facilities over which it has financial or operational control should be accounted. According to the shareholding approach; emissions of the entities in which the organization has a share must be counted in proportionate to the shareholding.

2.1.1 Control approach

Under the control approach, each entity accounts for 100 percent of the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations where it has an interest but has no control. Control can be defined either financial or operational terms.

Organization has selected the financial control approach because organization has financial control over the operation if it has the ability to direct the financial and operating policies of the operation with a view to gaining economic benefits from its activities.

In accordance with the ISO standard, the organizational boundaries were drawn around all the business operations controlled by LB Finance PLC. Organizational boundary chosen for calculating the carbon footprint was Head office, corporate office and all branches of LB Finance PLC.

2.2 Reporting boundaries

Under the reporting boundaries organization shall establish and document the direct and indirect GHG emissions and removals associated with the organization's operations.

2.2.1 Direct GHG emissions

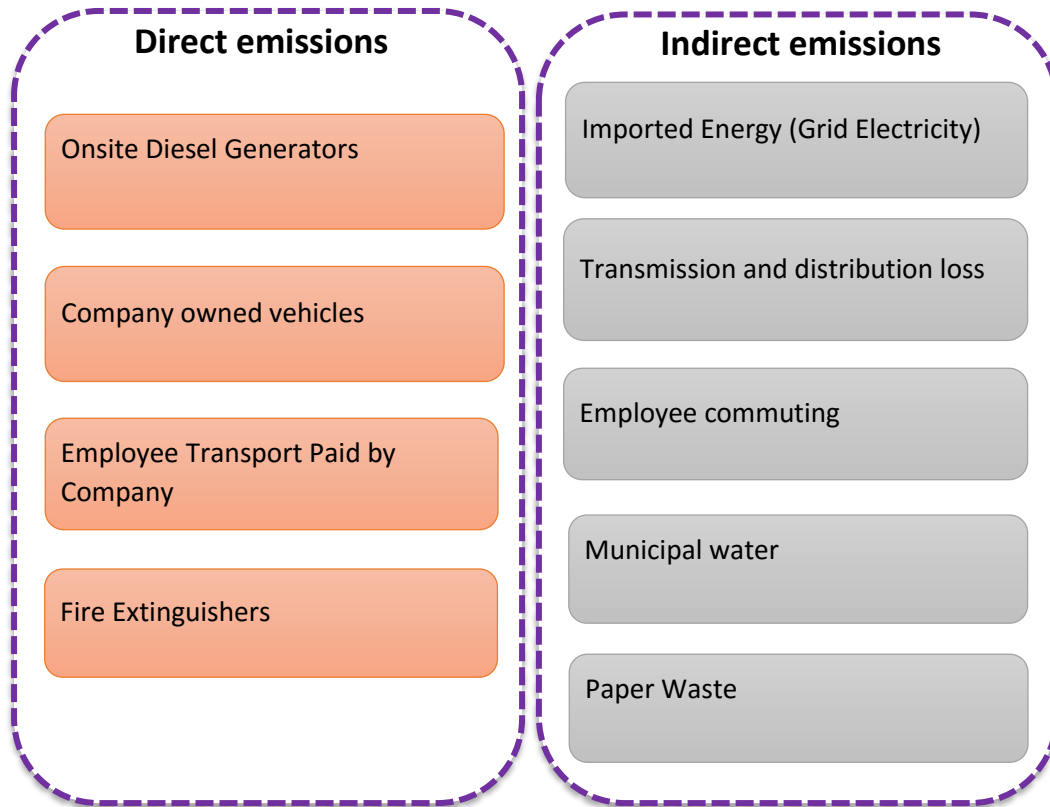
The direct GHG emissions should be quantified and reported separately for all GHGs in tonne of CO₂e.

2.2.2 Indirect emissions

Indirect GHG emissions occur as a consequence of the activities of the company, by sources owned or controlled by the company.

Indirect GHG emissions are emissions that occur as a consequence of the activities of the company but at sources owned or controlled by another company or person. These indirect emissions have been selected according to the materiality to the company operations. Within the operational boundary of LB Finance PLC, the emissions associated with the following activities were quantified and reported.

Figure 3: Representation of Direct and Indirect GHG emission categories selected



3. QUANTIFICATION OF GHG EMISSIONS AND REMOVALS¹

This is the Seventh year for which the GHG emissions were quantified in accordance with ISO 14064-1 and the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (January, 2010). This leads to a more complete reporting of LB Finance PLC's GHG emissions. All GHG sources were identified in consultation with LB Finance PLC. The identified, categorized emission sources can be seen in section 2.2 ("Reporting Boundaries") of this report.

3.1 Methodology

The main greenhouse gases are carbon dioxide, methane and nitrous oxide. Carbon dioxide is associated with electricity and fuel consumption. Methane and Nitrous oxide are formed in small quantities from the combustion of diesel and petrol. As per international protocol, all the greenhouse gases (GHGs) are converted to carbon dioxide using global warming potentials (GWP) as per the IPCC 5th assessment report (CO₂ -1, CH₄ -28, N₂O- 265). GHG reporting is done as Carbon Dioxide equivalent (CO₂e).

All calculations were done based on GHG activity data multiplied by an appropriate GHG emission factor. Unless stated otherwise, all emission factors were obtained from the Inter-governmental Panel on Climate Change (IPCC). This approach makes it easier to compare the carbon footprint calculated in this report with other similar reports.

Collection of activity data was done primarily through the invoices, log books utility bills, ERP system and employee surveys. All these Hard copies of GHG records will be kept at least for 2 years before archiving. To avoid the double counting data discrepancy and patterns of changes were monitored. When uncertainties arise sample surveys were carried out to get the real image.

¹ Removals has not been considered.

Table 2: Activity data used for quantifying GHGs.

Category		Activity Data		Reference
		Quantity	Unit	Data source
Onsite Diesel Generators		3.026	m ³ /year	LB FINANCE PLC
Fire Extinguishers		0.148	t/year	LB FINANCE PLC
Company owned vehicles	Petrol	8.958	m ³ /year	LB FINANCE PLC
	Diesel	40.407	m ³ /year	LB FINANCE PLC
Employee transport, Paid by the company (Petrol)		1.959	m ³ /year	LB FINANCE PLC
Grid connected electricity		4,282.8	MWh/year	LB FINANCE PLC
Employee commuting, not paid by the company	Public	85,018	km/year	LB FINANCE PLC
	Petrol	143.9	m ³ /year	
	Diesel	0.624	m ³ /year	
Municipal water		31,013	m ³ /year	LB FINANCE PLC
T & D Loss		4,282.8	MWh/Year	LB FINANCE PLC

3.2 Emission factors and other constants

Table 3: Emission factors and other constants used for quantifying GHGs

Emission sources	Emission Factor and constant		Reference
	No	Unit	
Diesel (Stationery Combustion)	74.34	t CO ₂ e/TJ	http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf
Diesel (Mobile Combustion)	75.24	t CO ₂ e/TJ	http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_3_Ch3_Mobile_Combustion.pdf
Petrol (Mobile Combustion)	71.07	t CO ₂ e/TJ	http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_3_Ch3_Mobile_Combustion.pdf
Municipal Water	0.35	kWh/m ³	Climate Change secretariat CFP manual
National Grid Emission Factor	0.4694	Kg CO ₂ e/kWh	http://www.energy.gov.lk/images/energy-balance/energy-balance-2018.pdf (National Energy Balance)
Transmission & Distribution Loss	8.23	%	https://ceb.lk/front_img/img_reports/1601877736Statistical_Digest_2019_Web_Version.pdf

3.3 Uncertainties

Employee commuting, fuel not paid by the company

Employee commuting data were collected through a survey. However, there is a possibility that the employees have not properly filled the respective distance which leads to some level of uncertainty.

Further, in the absence of country specific values, regional emission factors (Indian GHG Program) were used for some transport modes (employee commuting by vans, buses and trains).

Grid electricity and municipal water

Average values were assigned for missing data by considering the data on other months.

3.4 Exclusions

Exclusion from the Organization Boundary	Reason
Refrigerant leakage	Due to unavailability of sufficient data to quantify the GHG emissions
Transportation of locally purchased items	Due to unavailability of sufficient data to quantify the GHG emissions
Emissions of client/guest transportation	Due to unavailability of sufficient data to quantify the GHG emissions
Waste disposal (except paper waste) & transportation	Due to unavailability of sufficient data to quantify the GHG emissions

4. RESULTS: GREENHOUSE GAS INVENTORY EVALUATION

Table 4: Organizational GHG Inventory 2020/ 2021

GHG emissions 2019/ 2020					
	Emission Source	tCO ₂ e	CO ₂	CH ₄	N ₂ O
Category 1: Direct Emissions	Onsite Diesel Generators	8.12	8.10	0.009	0.017
	Fire Extinguishers	0.15	0.15		
	Company owned vehicles	131	128	0.435	1.761
	Employee Transport, Paid by The Company	4.63	4.52	0.06	0.05
Total Direct Emissions		144.26	140.78	0.504	1.828
Category 2: Indirect Emissions from imported energy	Grid Connected Electricity	2,128.47			
Category 3: Indirect emissions from transportation	Employee Commuting, Not Paid by The Company	640.90			
Category 6: Indirect emissions from other sources	Municipal Water	6			
	T & D Loss	190.88			
Total Indirect emissions		2,966			
Total GHG emissions		3,110			

Direct on-site greenhouse gas emissions are due to fossil fuel consumption and fire extinguishers by LB finance PLC.

Indirect emissions are sometimes difficult to assign to a specific operation, therefore, the reporting method for different sources may vary.

LB Finance PLC's operations use the electricity from Ceylon Electricity Board, which is the national grid. The National Grid consists of coal, large hydro, diesel, and non-conventional renewable energy sources. The emission factor used to calculate emissions associated with electricity consumption is 0.4694 tCO₂e/MWh. LB finance PLC's Grid connected electricity consumption accounts for the top indirect emissions. In addition, transmission and distribution loss, Municipal water consumption and employee commuting are the other sources of indirect emissions.

5. Comparison of CFP report of FY 2020/21 with previous Financial Years (2017/18 ,2018/19 and 2019/20) CFP reports²

5.1 Comparison of Whole Organizational GHG emissions

Table 5: Comparison of GHG inventories over financial years

Emission Category	Emission Sources	GHG Emissions (tCO ₂ e)			
		2017/18	2018/19	2019/20	2020/21
Direct GHG Emissions	Onsite Diesel Generators	10	12	14	8
	Refrigerant Leakage	N/A	125	N/A	N/A
	Fire Extinguishers	N/A	0	0.1	0.15
	Company Owned Vehicles	172	206	170	131
	Employee Transport, Paid by The Company	N/A	5	5	5
	Total direct GHG emissions	182	348	189	144
Indirect GHG emissions	Grid Connected Electricity	2,251	2,686	3,335	2,128
	Business Air Travels	7	N/A	N/A	0
	Employee Commuting, Not Paid by The Company	537	669	649	641
	Municipal Water	6	9	8	6
	Waste Disposal	N/A	0	N/A	0.008
	T & D Loss	240	286	303	191

² Variation of emission factors over the time have not been considered for this Comparison and only direct and indirect emission values are available for FY 2015/16 and 2016/17.

	Total Indirect GHG emissions	3,041	3,649	4,295	2,966
Total Emissions		3,223	3,997	4,484	3,110

5.1 Comparison of the Organizational Carbon Footprint over the Financial Years

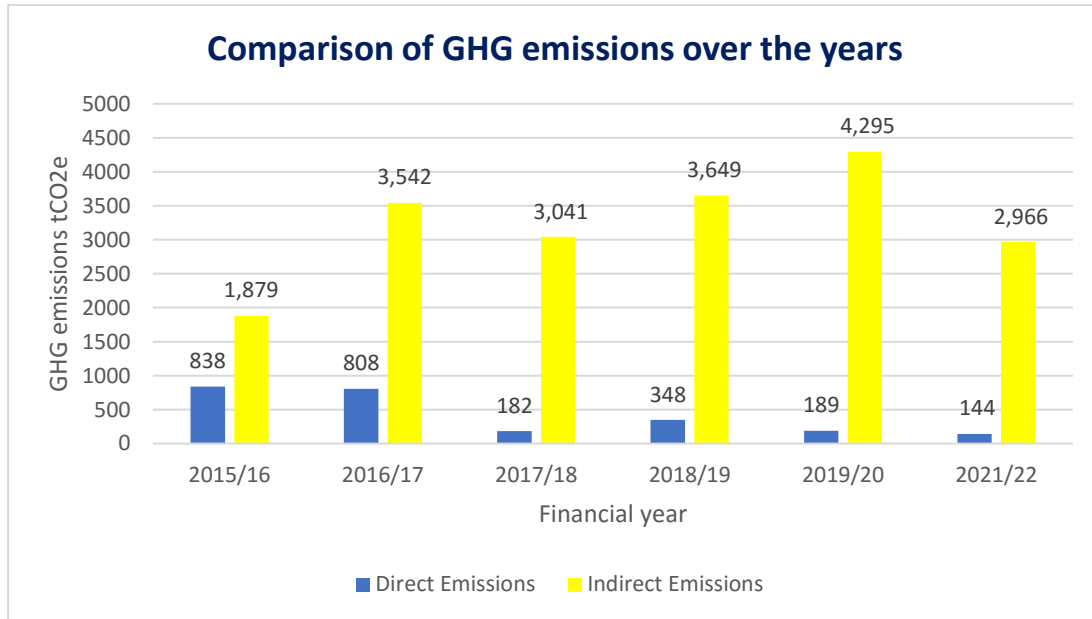


Figure 4: Comparison of overall emissions

The organizational footprint for the financial year 2020/21 is 3,110 tCO₂e while the total GHG emissions for FY 2017/18, FY 2018/19 and FY 2019/20 are 3,997 tCO₂e, 3,223 tCO₂e and 4,483 respectively. Overall GHG emissions in FY 2020/21 have reduced by 30% against FY 2019/20. GHG emissions in 2020/21 has been reduced due to covid pandemic situation and reduction of grid emission factor which is contributed largest emissions of GHG inventory; Grid connected electricity.

5.2 Comparison of direct GHG emissions over the Financial Years

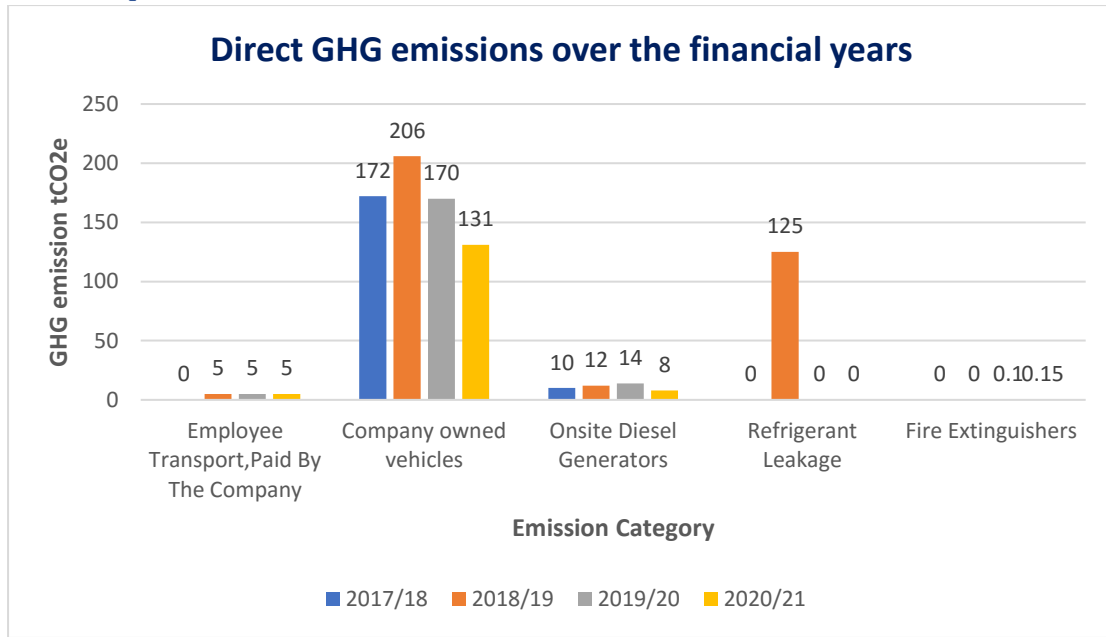


Figure 5: Comparison of direct emissions by the financial year

The Largest direct GHG emissions are caused by the company owned vehicles over the last financial years. It is decreased by 23 tCO₂e in FY 2020/21 compared with last financial year.

5.3 Comparison of Indirect GHG emissions over the financial years

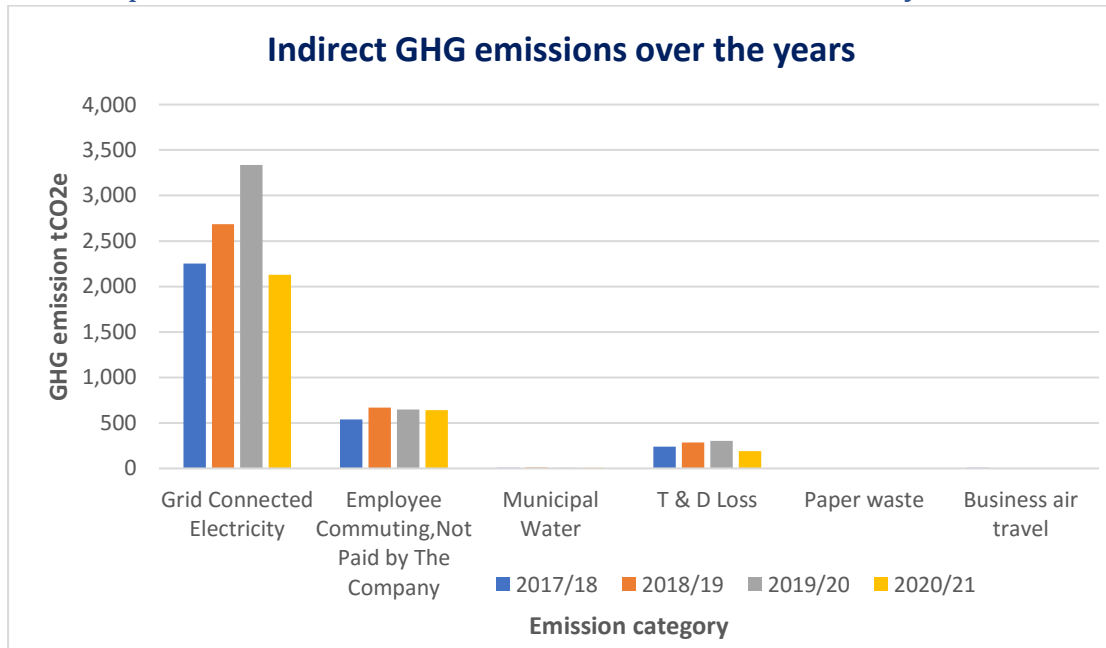


Figure 6: Comparison of Indirect emissions by the financial year

The emissions from the grid connected electricity in the financial year 2020/21 have decreased by 1,206 tCO₂e compared with the last financial year.

5.4 Comparisons of Emission Factors & other Constant with previous years

Table 6: comparisons of emission factors and other constant with previous years

Source	Emission Factor & Other Constant used for GHG inventories			
	2017/18	2018/19	2019/20	2020/21
Grid electricity (kgCO ₂ e/kWh)	0.568	0.568	0.5845	0.4694
Transmission & Distribution Loss (%)	9.63	9.63	8.34	8.23

- The GHG inventory for 2019/20 and 2020/21 have been done according to the ISO 14064:2018 and for the previous years, it was done using the GHG protocol and ISO 14064:2006 standard.

5.5 Comparisons of per capita emissions with previous years

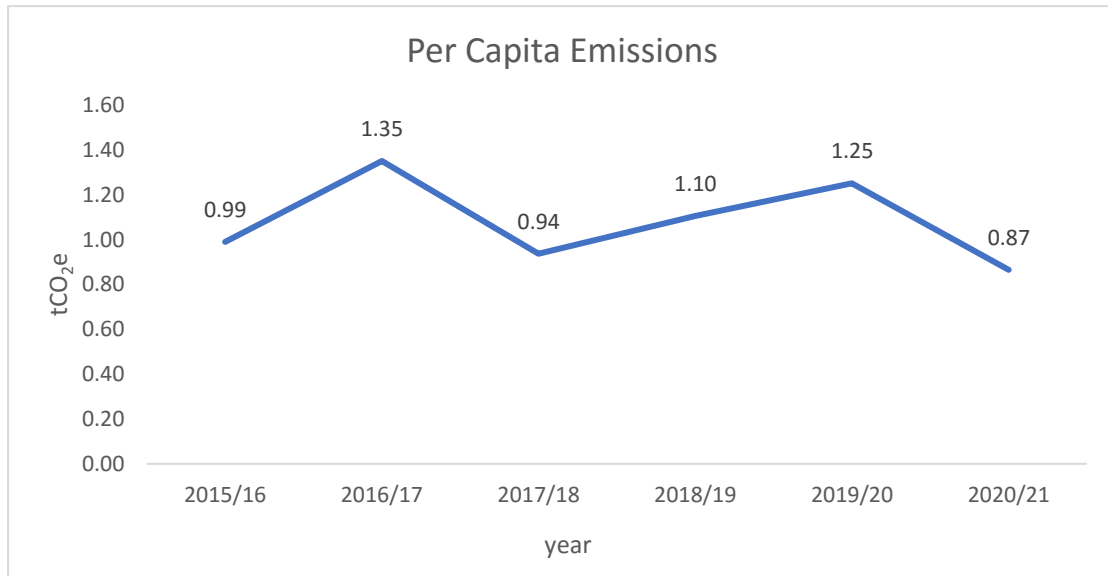


Figure 7: Per capita emissions over the finance years

The total number of employees for the 2015/16, 2016/17, 2017/18, 2018/19, 2019/20 and 2020/21 are 2,744, 3,221, 3,441, 3,618, 3,583 and 3,595 respectively. Emissions per head are illustrated in figure 7.

6. CONCLUSION & RECOMENDATIONS

Carbon footprint measurement and reporting was conducted in accordance with ISO 14064:2018. The resultant carbon footprint of LB Finance PLC for FY 2020/21 is 3,110 tonnes of CO₂e.

We believe that this assessment and future carbon audits will complement the image of LB Finance PLC and will provide a sound basis for continuing the participating programmes such as Carbon Disclosure Project and United Nations Carbon Neutral Now. In addition, we also assume that this assessment will help LB Finance PLC in identifying emission reduction opportunities.

6.1 Recommendations

Information Management System

LB Finance PLC could improve the information management of carbon footprint by:

- Improving its data management system from manual to web system to capture the data required for measuring and reporting of the carbon footprint.
- Identifying and reviewing the responsibility and authority of those responsible for data collection for measuring and reporting carbon footprint

NEXT STEPS

- Develop carbon neutral action plan for LB Finance PLC.
- Identify key mitigation opportunities and develop feasibility studies.
- Develop product carbon footprint for main products.
- Reach carbon neutral status.