

## Carbon Emissions Report 2023

### Introduction

This Carbon Emissions Report presents an overview of the greenhouse gas (GHG) emissions generated by Tafila Technical University for the year 2023. As a responsible and forward-thinking institution, we are committed to tracking, measuring, and mitigating our carbon footprint.

This report provides a transparent account of our progress in reducing carbon emissions and advancing our sustainability goals.

### Our Methodology

Including the Greenhouse Gas Protocol, we follow internationally recognized protocols and methodologies for calculating carbon emissions. Scope 1 and Scope 2 emissions are considered in our assessment, encompassing direct and indirect emissions from owned or controlled sources and purchased energy consumption. For accurate emissions quantification, carbon intensity of energy sources is considered.

### Our Data Sources

Data for this report is sourced from various faculties, centers, departments, and facilities within the university, including energy consumption records, travel data, and procurement activities.

The following Table presents the data for the 2022, 2023 and the expected for 2024:

	Scope 1 CO2 (tonnes)	Scope 2 CO2 (tonnes)	Total CO2 (tonnes)
2022	390	0	390
2023	358	0	358
2024 (expected)	310	0	320

### Scope 1 Emissions

We have accurately calculated and assessed the emissions resulting from the consumption of heating oil for our heating units and the emissions resulting from business travel. Our carbon footprint can be accurately measured, allowing us to implement targeted strategies to mitigate our environmental impact. By calculating emissions rigorously, we demonstrate our commitment to sustainability and take proactive measures to reduce our carbon footprint.

### Scope 2 Emissions

The Tafila Technical University has successfully achieved net zero carbon emission in 2022 by having 100% renewable energy resources to cover the electricity energy needs at the campus. The PV systems at the campus reduced carbon footprint, by reducing its annual CO2 emissions, and reducing the need to import, transfer, refine, and burn of oil, annually.

## **Analysis**

Comparing the data from 2022 and 2023, a 32 tonnes reduction in our overall carbon emissions and it is expected to be reduced 48 tonnes during 2024. This achievement is a result of our proactive efforts to implement sustainable practices and energy efficiency measures across campus.

**The Tafila Technical University directly took number of actions to reduce carbon emissions including:**

**Renewable Energy Adoption:** Increased deployment of renewable energy sources (PV systems) to meet our energy needs sustainably and reduce dependency on fossil fuels.

**Energy Efficiency:** Reducing energy consumption and emissions by implementing energy-saving initiatives, such as building retrofits, lighting upgrades, and HVAC system optimization.

**Sustainable Transportation Initiatives:** Increasing public transport use, encouraging the use of electric vehicles, and motivating carpooling to reduce commuting-related emissions.

**Green buildings:** One of the main commitments at the Tafila Technical University is that all new buildings must be smart and green. Energy/water management and sustainability is a major focus of Tafila Technical University's Climate Policy, with a clear focus on enhancing energy/water efficiency and moving towards a more sustainable future.

**Increasing the green areas** at the campus by 12% every year.