One Carbon World
Carbon Footprint Verification

Presented to:

International Biathlon Union (IBU)
Events
Reporting period: 01/10/23 – 30/09/24

Issued: December 2025

Contents

Page

Foreword

It is our pleasure to present to IBU the One Carbon World (OCW) Carbon Footprint (CF) review. Please note we will use the terms carbon footprint and Greenhouse Gas (GHG) emissions interchangeably throughout this report.

The link between GHG emissions and climate change are unequivocal, as scientific evidence demonstrates that unabated emissions are driving climate change and its impacts globally. Current levels of global GHGs are at their highest ever recorded level and the recent UN report has currently indicated that the average global temperature is 1,5 degrees warmer than pre-industrial levels. For every 1 degree increase in global temperatures, we will experience a 7% rise in increasingly severe and unpredictable extreme events.

Responding to the climate crisis requires urgent action from organisations, governments, and individuals. Forward-thinking companies are taking responsibility by voluntarily reporting their GHG emissions for various reasons, including strategic decarbonisation planning, risk management, cost reduction, brand protection, and attracting socially responsible investors.

At this critical juncture, accurate GHG accounting and verification methods are essential to track progress toward mitigation targets and ensure transparency. Organisations must demonstrate how GHG accounting protocols are applied to inform climate strategies and provide credibility to stakeholders and investors. Verification can help companies reduce exposure to transition risks, by ensuring corporate GHGs are robustly quantified to facilitate informed and measured investment in climate action.

Introduction

OCW is a global leader in supporting organisations to measure, reduce, and compensate for their carbon emissions. As a recognised United Nations Observer organisation, OCW participates in key UN Summits, including its selection by the Egyptian Government to measure emissions at COP27 and author the official UN Sustainability Report.

OCW's third-party verification follows stringent quality assurance and control standards, including GHG Protocol Corporate Standard, ISO 14064-3, ISO 14064-1, ISO 14040, and PAS 2050. For domestic GHG reduction project validation and verification, OCW adheres to the GHG Protocol Corporate Standard BS ISO 14064 — Part 3, ensuring that emission reductions are accurately measured and verified.

The verification of a GHG statement ensures credibility of the data collected. Furthermore, verification acts to reassure regulators, customers, employees, shareholders, potential investors, environmental groups, the media and competitors, of the integrity, completeness and transparency of the GHG statement.

IBU is committed to sustainability and has calculated their GHG emissions covering the events held during the period 1st October 2023 — 30th September 2024.

IBU Events 2023/24 Carbon Footprint Review

Objectives and Benefits

IBU collate their information and data in a consistent format and populate this into an ESG reporting software — Position Green. As such due to the nature of the software format, this document only seeks to provide a summary review of the core inputs and outputs of the IBU events in 2023/2024. Please note that Position Green align with several globally recognised reporting protocols and as such it is understood to be robust and appropriate for use, these will be discussed further within this report.

Objectives of the Project

The objectives of this project for IBU are as follows:

- To provide assurance to IBU, that, based on information provided, the GHG assertion is reliable and of sufficient quality for external voluntary carbon reporting purposes.
- To assist IBU internal purposes, including Corporate Social Responsibility (CSR) reporting, annual disclosures, and tracking progress toward internal carbon footprint reduction goals.

Benefits of Verification for IBU

- Achieving Carbon Neutral International Standard Award: Provides IBU with an internationally recognised standard for carbon footprint measurement, enabling a focus on efficient and cost-effective climate mitigation programs and carbon credits.
- Enhancing Corporate Sustainability Credentials: Strengthens transparency and builds confidence among stakeholders by demonstrating that IBU's emissions have been offset through OCW.
- Regulatory Compliance: Demonstrates to external stakeholders that IBU's environmental performance is transparent, accurate, and consistent over time, aligning with internal management reporting requirements.

Workflow

The GHG emissions reviewed by OCW correspond to IBU's CF for the events held during the period from 1st October 2023 — 30th September 2024. As part of the process, the OCW team conducted a desktop review and engaged with IBU through virtual correspondence. This engagement aimed to confirm the activities, concepts, and methodologies relevant to the GHG calculation and CF report development. IBU provided pertinent data, methodologies, and references to support the assessment. The OCW verification team performed a qualitative and quantitative evaluation of the CF report, understanding data collection processes in place, emissions factors applied, and testing their application to identify any potential for errors, limitations, or misrepresentations. Using professional judgment, the team determined whether any qualitative discrepancies could affect the overall GHG assessment. Throughout the process, a query log was maintained to document inquiries and clarifications.

The resulting carbon footprint covers the following events:

- World Cup and World Championship
- IBU Cup/European Open Championship/Summer Biathlon World Championship
- IBU Junior Cup/Youth and Junor World Championship

Several files were shared and reviewed, including but not limited to:

- Excel 'Event Survey' and 'Spectator-Travel': all detailed data used in the emissions calculations and the results by event location for all events.
- Excel 'Consolidated-Rawdata-2023-2024': all detailed data used in the emissions calculations and the results themselves summarised for all events.
- Pdf. and Excel 'Summary-2023-2024': summary of the emissions results for events.
- Email 'Guidance on IBU Event Carbon Footprint': guidance to all data managers.
- Pdf. 'Position Green Guidance 2025-2026': guidance covering each activity type to all data managers. Historical guidance was also provided.

Results

Emissions are reported in terms of carbon dioxide equivalent (CO_2e) covering the following:

- Mobility, including spectators
- Energy
- Procurement & waste
- Accommodation
- Food and beverage

Scope 1 (1,030.89 tCO_2e)

Direct emissions from boilers, furnaces, vehicles, chemical production in owned or controlled process equipment.

Scope 2 (836.09 tCO_2e — Location-Based)

Indirect emissions consumption of purchased electricity, heat, steam and cooling.

Scope 3 (34,574.13 tCO_2e)

Other indirect upstream and downstream emissions in the company's supply chain from production and transportation of the goods and services purchased to the end-user's use of the company's products or services. For IBU this included:

IBU total emissions

Total Emissions Scope 1 — 3 (Location Based)	Total Emissions Scope 1 — 3 (Market Based)
36,441.13 tonnes CO_2e	**36,441.13 tonnes CO_2e**

Observations, Uncertainties and Recommendations

IBU collate information and data about each of their events in a consistent format and populate this into an ESG reporting software — Position Green, the software references that it aligns with the following ESG reporting frameworks:

- GRI
- EU Taxonomy
- SFDR
- UN SDGs
- CSRD/ESRS
- TCFD
- CDP
- UN Global Compact
- UN PRI
- GHG Protocol
- Nasdaq ESG Portal
- ISO 14001 & 26000

The above provides assurance that the calculations and methodology contained within the software are sound and appropriate for use and that the applied emissions factors are also aligned with such reporting frameworks and protocols, however these were not reviewed due to them being contained within the software itself.

Emissions Factors Applied

IBU should confirm that any reporting software used ensures the source and year of emissions factors applied are updated periodically to ensure their appropriateness for use.

It is advised that IBU account for the transmission and distribution (T&D) losses of the electricity they purchase, which occur between the power stations and their sites. These elements may already be included in the emissions factors applied by the Position Green software.

Data Collection Methodology and Internal Auditing

Internal data collation processes including internal auditing and validation have been improving over time to enhance the quality of the raw data used. This was described during correspondence with IBU during the review process. This is commendable and is also essential given the diverse and dispersed nature of the data.

It is recommended that sample raw data are collected from the events data management personnel to provide further assurance about source data used in the calculations.

It is also recommended that a review is carried out to confirm the allocation of activities to Scope 1, Scope 2 and Scope 3. For example, 3rd party transport / vehicle services, should be allocated to either Category 1 Purchased Goods and Services, or 6 Business Travel.

Location- and Market- Based Reporting

Reporting should include both market-based Scope 2 emissions, and location-based emissions in line with the GHG Protocol. This will provide a more complete assessment of the events GHG impacts, risks and opportunities associated with the procurement of electricity. Scope 2 location-based emissions should reflect the grid where the electricity is being consumed, and market-based emissions should reflect the electricity supply chosen by IBU.

Scope 3 Emissions Methodology

It is acknowledged that, given the nature of Scope 3 emissions data, certain challenges exist, such as data availability, required assumptions, sampling methodologies, and the inclusion of data not directly under IBU's direct control. As a result, absolute accuracy for Scope 3 emissions may be difficult to guarantee. Therefore, IBU should ensure the following for these emissions sources:

- Available data is as accurate as reasonably possible.
- Assumptions used in calculating emissions are clearly documented.

To build on this further, IBU could discuss with other core suppliers if carbon footprint data specific to their service delivery/products is available.

Additional Opportunities and Recommendations

IBU have a Climate Transition Action Plan (CTAP) in place summarising several pillars towards 'climate credibility' that they are working towards, to set near-term emission reduction milestones and to commit to achieving shorter-term goals:

Ambition

- Conduct emissions inventory (scopes 1-3)
- Set science-based targets and metrics
- Validate targets (SBTi, TPI or recognized standard)

Action & Advocacy

- Create emissions reduction plan
- Integrate plan into business strategy and governance
- Advocate for enabling public policies
- Ensure a just transition

Accountability

- Assess progress of public disclosure results
- Solicit feedback from stakeholders
- Adjust CTAP plan to meet medium- and long-term goals

The plan sets out the IBU commitments and actions covering areas such as Governance, Emissions Profile and Reduction Strategy, Engagement Strategy and Risks and Opportunities.

IBU are also a signatory of the UNFCCC Sport for Climate Action Framework since 2020 and is also a member of the UN Race to Zero.

Current and near-term actions are detailed on p.7 of the CTAP. Priority action areas have also been documented on p.15-26, as such the following have simply been provided as additional information given that IBU have an extensive action list already defined.

Transport to and From Events

It is understood that travel is essential for the successful running of events, however a travel hierarchy could be implemented that applies the following principles:

- Is the travel necessary - can virtual attendance be considered (zero emissions)?
- If the travel is necessary - can 'active travel' be used (zero or very low emissions)?
- If the travel is necessary and not local - can public transport be used (low emissions)?
- If the above are not practical consider pool cars/hire cars, making sure they are low emission and hire cars used for +100-mile trips only (prioritise low emission vehicles).
- Only use air travel where this is necessary (high emissions).

Purchasing of Goods and Services

Procurement of products is an important support mechanism in delivering the IBU decarbonisation objectives. This can be achieved through further engagement with key stakeholders as early as possible to identify the outcome required and determining, in conjunction with the market, the best way of delivering this. This may involve challenging the norm and capturing and embracing innovative solutions. Agreed sustainability objectives and requirements can then be embedded through the procurement processes (specification, tender, evaluation criteria & contract management). As IBU have an extensive supply chain, a prioritisation exercise would highlight service providers which represent the highest balance of, empirically assessed, categories according to spend or carbon impact as relevant to IBU. The outcome of this exercise can then ensure effort is focused where needed and prioritises market engagement requirements as well as who internally needs to be engaged and aware of key issues. This then helps the prioritisation of expenditure on sustainability resource, which in turn informs the focus on priority suppliers and categories and internal stakeholders. The most important stage within the procurement process is always to undertake a review of the need for procurement in the first instance and to question if alternative procurement routes should be considered.

These recommendations are non-exhaustive and are designed to provide guidance only.

Result

As outlined within the GHG Protocol, companies wishing to report their emissions shall ensure that GHG accounting is based on the principle of Relevance, Completeness, Consistency, Transparency and Accuracy.

It is OCW view that the reported emissions as summarised within this report are a fair representation of the GHG emissions concurring with the activity information collated by IBU for their 2023-24 events. This is based on the understanding the ESG reporting software in use — Position Green, aligns with reporting protocols such as the GHG Protocol.

Therefore, IBU's commitments to carbon neutrality, along with initiatives taken to reduce its carbon footprint, are relevant, effective, and demonstrate leadership and continuous improvement toward sustainable business practices that contribute to climate change mitigation.

The OCW Finance team will be in touch to present options for compensating the IBU 2023-24 event emissions.