

# SUSTAINABLE MOBILITY FOR FANS, STAFF & TEAMS AND SNOW MANAGEMENT

## OBERHOF GERMANY



### ABSTRACT

At the 2023 IBU World Championships, OC Oberhof introduced a comprehensive sustainable mobility programme to reduce emissions from fans, staff, and team travel, one of the largest sources of CO<sub>2</sub> at major sporting events. Measures included integrating free public transport into event tickets, organising additional fan buses, and running efficient Park+Ride systems with shuttle services to cover the 'last mile'. Climate-friendly HVO fuel replaced diesel for snow management, cutting emissions by up to 90%. The initiative reduced traffic congestion in Oberhof, made the event more accessible, and achieved significant emission savings. Looking forward, OC Oberhof plans to expand incentives for fans to use low-carbon travel and extend HVO use across all operations.

### WHAT WAS THE GOAL?

OC Oberhof recognised that transport to and from major events is a leading contributor to greenhouse gas

emissions. The 2023 World Championships provided the opportunity to take ambitious steps to reduce travel-related impacts. The goal was twofold: to cut CO<sub>2</sub> emissions by shifting fans, staff, and teams from private cars to sustainable collective transport; and to make the venue more accessible while easing local congestion. Additionally, the OC aimed to implement cleaner fuels in snow management operations, which are otherwise highly diesel dependent.

### HOW WAS THE GOAL ACHIEVED?

The turning point came in 2022/23, when the municipality of Martell completed the construction of a new hydropower plant. This facility now provides the Biathlon Center with a steady supply of clean electricity, amounting to over 2.19 million kWh annually. The plant was built using only "restwater" from the Zufrittstausee reservoir, ensuring that no new concessions or environmental disturbances were required.

The OC developed a multi-pronged mobility and energy approach:

- **Integrated public transport:** A free public transport ticket was included in every event ticket within a 50 km radius (covering Erfurt, Bad Neustadt and Wernshausen). This enabled spectators to reach the Zella-Mehlis station, 10 km away from Oberhof.
- **Shuttles & Park+Ride:** For those arriving by car, traffic was diverted to Park+Ride zones outside Oberhof. 91 shuttle buses operated continuously between P+R areas, Zella-Mehlis station, and the event venue, ensuring seamless last-mile coverage.
- **Fan buses:** Between 40-60 organised fan buses arrived daily, transporting 2,000-3,000 spectators per competition day. Reserved bus parking lots were provided within walking distance of the stadium.
- **Team & staff mobility:** Mobility for athletes, officials, and staff within Oberhof was coordinated by an internal shuttle system, minimising single trips.
- **Snow management:** 4,000 litres of Hydrotreated Vegetable Oil (HVO) fuel were used to operate snow groomers and maintenance vehicles. HVO, made from industrial waste products and palm-oil free, reduces emissions by up to 90% compared with diesel.

## WHICH IBU SUSTAINABILITY ISSUES DOES IT ADDRESS?

The initiative tackled several priority areas from the IBU Sustainability Strategy 2020–2030:

- **Emissions from travel & transport** – By integrating public transport, providing Park+Ride and fan buses, the project directly reduced emissions and car traffic.
- **Emissions from energy use** – The use of HVO fuel in snow management cut approximately 9,400 kg of CO<sub>2</sub> emissions compared to conventional diesel.
- **Inadequate sustainability awareness among biathlon stakeholders** – Communication campaigns via tickets, website, social media and press raised awareness of low-carbon mobility choices.

- **Air pollution & congestion** – Reduced car traffic eased the strain on Oberhof's small road infrastructure, improving local air quality and the fan experience.

## WHAT WERE THE CHALLENGES FACED?

A major challenge was calculating the integration of public transport into ticketing, with no prior experience to draw on. The absence of spectators in 2021 and 2022 due to Covid-19 made planning more complex. Coordination with multiple stakeholders (public transport operators, local authorities, bus companies) was time- and negotiation-intensive. Plans to use more electric vehicles for local shuttles were hindered by insufficient charging infrastructure. For snow management, HVO fuel could only be used during the event period, not in the preparatory phase, due to short-notice negotiations and logistical constraints.

## WHAT ARE THE NEXT STEPS?

OC Oberhof intends to expand sustainable mobility options by strengthening communication and incentives for fans to use public transport. Prize funds and future investment could help extend the ticket radius, integrate Germany's new nationwide "DeutschlandTicket", and increase data collection with local providers. For snow management, the goal is to use HVO fuel not only during events but also in preparation phases, and potentially extend it to shuttle services. Long-term, OC Oberhof aims to integrate more electric vehicles once adequate charging infrastructure is in place.

**Oberhof's integrated approach to mobility and snow management shows how large-scale winter sport events can cut emissions while improving accessibility and fan experience.**

For further information on the sustainability work of the IBU, please visit:

<https://www.biathlonworld.com/inside-ibu/sustainability>