

Sunnyside Net Zero Road Map

Report covering January to December 2023

Executive summary

At Sunnyside Guest House, we understand the critical importance of minimizing our environmental footprint and contributing to the global effort against climate change. As a dedicated provider of warm hospitality, we believe that sustainability is not just a responsibility but a unique opportunity to enhance the quality of our guests' stays while leading by example in the travel and tourism industry.

Our commitment to sustainability is seamlessly integrated into our quest for excellence in guest service and is woven into the very fabric of our operations. We are dedicated to implementing and promoting eco-friendly practices, ensuring that every aspect of our guest house, from energy consumption to waste management is optimized for minimal environmental impact. By prioritizing sustainability, we aim to provide our guests with a stay that is both comfortable and conscientious.

The Sunnyside Guest House Net Zero Road Map is a testament to our dedication to a greener future. It lays out our comprehensive strategy to achieve net zero carbon emissions by 2030, across scopes 1, 2 and 3. This ambitious goal is not just a target, but a reflection of our core values and our pledge to make a positive difference.

Sustainability is a journey, and we are committed to continuous learning and improvement. With the active participation and support of both myself, Larissa (my wife), guests, and partners, we are confident in our ability to meet our sustainability goals and inspire others in the industry to follow suit. Together, we can create a brighter, more sustainable future for all.

The scope of this report

We have used the methodology set out in the Hotel Carbon Measurement Initiative (HCMI) provided by the Sustainable Hospitality Alliance. In addition, we have also used Scope 3 GHG Measurement and Reporting Protocols for Food and Drink from WRAP and the WRAP Co2 emission factor database to provide the conversion factors for the food and drink in our carbon footprint calculations.

Our commitment

We have made the ambitious commitment to reach net zero by 2030. We believe this represents a significant commitment for a small business in the hospitality industry; however, we are determined to lead by example and demonstrate that sustainability is not only achievable but also economically viable. This journey will involve significant investments in renewable energy, energy-efficient systems, including heating and hot water solutions, alongside our existing sustainable practices. While we believe the challenges are considerable and the road ahead may be bumpy, we are confident that our efforts will contribute positively to the environment, enhance our guests' experiences, and we hope to set a precedent for other businesses within our community to follow.

Our Journey So Far

At Sunnyside, we've made significant progress on our sustainability journey so far. This led to us becoming one of twenty-three B&Bs across the UK to be awarded the coveted Gold Award by the Review Panel of world-leading sustainability accreditation partner, Green Tourism. Below we have covered some of the highlights on our journey so far;

Scope 1 and 2 - Energy & Insulation

We have taken out a 100% renewable electricity contract. This means our supplier will buy enough renewable electricity from the network to match our use. This encourages investment in renewable infrastructure. Under the HCMI methodology energy purchased under a 100% renewable energy supplier is calculated free of carbon. The supplier we have used is Octopus which is Ethical Consumer Magazine's highest rated 100% renewable energy supplier.

In 2023 we reduced our electricity consumption by a massive 41% in comparison to 2022 figures. This followed an electricity audit at the end of 2022 where we tested appliance efficiency using an appliance meter. We initially cut an estimated 25% by disposing of two very old inefficient freezers and replacing with a much smaller modern chest freezer. Since we have taken many further steps including swapping our old dryer for a heat pump tumble dryer, installing sensor lights. We will continue to monitor our electricity consumption, now with the help of a real-time electricity monitor that tracks individual circuits within the building reporting back to our smart app. The app then analyses the data and presents it in user-friendly graphs. This approach is much more effective than a standalone smart meter, as it provides far more detailed information. When a specific circuit shows high energy usage, we can monitor the individual appliances on that circuit with appliance meters and make informed choices whether to remove or replace any inefficient items, ultimately reducing our overall consumption and in turn our carbon footprint.

In 2023 we also reduced our gas consumption by 14% in comparison to 2022 figures. We have started to exchange some gas appliances in favour of electrical as we work toward using clean electricity to power all appliances. This includes using electric cooking appliances instead of gas where currently possible.

90% of our rooms have been well insulated with insulation above ceilings and between floors and partitions.

Waste – Scope 3

Substantial effort has been placed on reducing waste, with a recent focus on paper and plastic reduction. We don't always use conventional ways to package our items. These steps helped us receive the Surfers Against Sewage Plastic Free Communities Gold

Our waste reduction highlights include;

- Bottling our own milk in reusable containers, eliminating 5,000 plastic milk portions annually.
- Using refillable glass bottles for water, preventing the use of over 3,250 plastic bottles each year.
- Adopting compostable bags, which replaces more than 2,500 plastic bags annually.
- Serving jam in reusable glass jars, reducing 700 plastic portions each year.
- Most of our cleaning products are purchased from a local manufacturer who have a closed loop system in place allowing us to return our empties for refilling.

Water - Scope 3

We have taken a number of steps to reduce our water consumption on site such as dual flush toilets, low flow showers, water butts and a hot water system that provides instant hot water. More information can be found on our [Sustainability Policy](#)

Procurement - Scope 3

At Sunnyside, our procurement strategy has been key to reducing our Scope 3 carbon footprint, which includes indirect emissions across our value chain. We focus on sourcing from manufacturers with strong environmental practices, ethical labour conditions, and transparent business operations. By prioritizing suppliers certified as B-Corps and Fairtrade, we ensure that we partner with organizations committed to sustainability, fair wages, and reducing their own carbon emissions.

We also look for key certifications such as Soil Association Organic, Cruelty-Free, Certified Vegan, and Sustainable Palm Oil. These certifications guarantee that products meet high standards of environmental and social responsibility, from reducing deforestation to avoiding synthetic fertilizers and animal testing. We actively avoid suppliers involved in tax avoidance, unethical labour, or environmentally harmful practices. Our purchases are made using detailed information provided in purchasing guides. We ensure everything from our bank account to our laundry detergents are recommended by these guides. For more information on our procurement check out how we have purchased our [in room consumables to reduce your environmental impact](#).

Food Scope 3

We have committed to the Food for the Planet pledge to help reduce our carbon footprint through more sustainable food practices. To achieve this, we prioritize locally sourced ingredients, minimizing food miles and the carbon emissions tied to long-distance transport. On-site, we maintain our own beehive for honey production and cultivate a herb garden, both

of which reduce food miles and promote biodiversity. Additionally, we preserve seasonal fruits by making jams and preserves. By working closely with local farmers and suppliers, we not only support the regional economy but also ensure that our guests enjoy fresh, high-quality produce. Reducing the reliance on energy-intensive methods such as artificial heating and lighting in greenhouses, or long-term refrigeration for off-season foods.

We have reduced food waste with support from WRAPS "Guardians of the Grub" food wastage programme. This involved planning our menus carefully, monitoring portion sizes, and repurposing ingredients wherever possible. Our kitchen practices extend to composting some food scraps, which helps return nutrients to the soil and reduces the amount of organic waste going to landfill, thus lowering methane emissions. We donate some of our excess food to the Southport Soup Kitchen which is then distributed to those in need.

We are committed to sustainability by choosing organic ingredients, ensuring minimal use of harmful pesticides and fertilizers. By sourcing Fairtrade-certified, cruelty-free, and plant-based dishes, we ensure our food choices have a lower environmental impact and support a more sustainable food system. To further empower our guests, we provide carbon ratings on our menu, helping them make informed choices about their food and its environmental impact. Find out more in our [Sustainable Food Story](#).

Travel

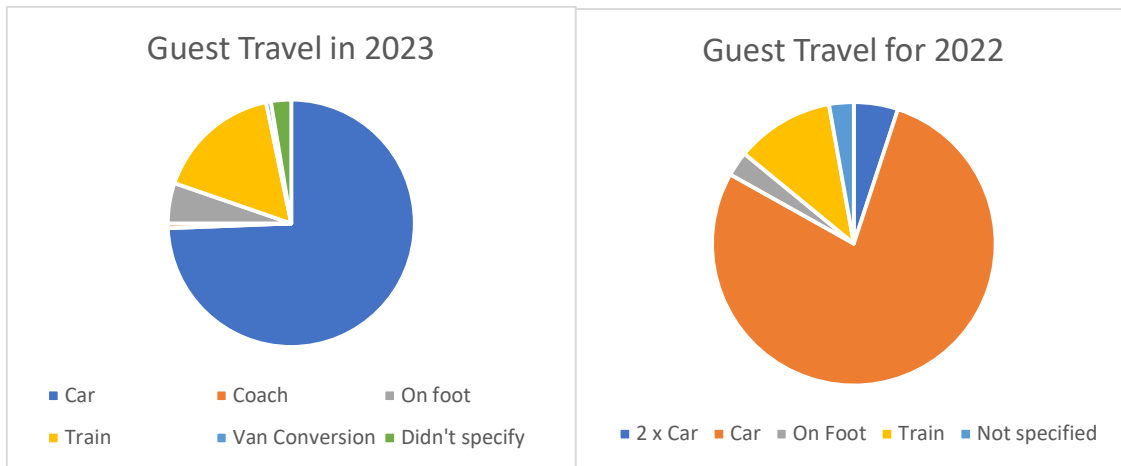
Business Travel - Scope 3

Within the business and personally we don't have any vehicles of our own. We rely on delivery's from our local suppliers in most cases. When we have to travel out of town for meetings we do so using the trains. We are very lucky to have a very efficient and reliable service run by Merseyrail right on our doorstep. We are a family business and we live on site, which means we avoid any emissions from the daily commute to work.

While we try our best, not all produce comes from local producers and in some cases, we purchase them from the supermarket. Again, we are lucky to have 4 supermarkets within a 10-15 minute walk of the Sunnyside. We simply walk to the shops to pick up any items we need.

Guest Travel – Pre Arrival

Although guest travel falls outside the scope of our carbon footprint calculations (unless we arrange it), we are still committed to making a positive impact wherever we can. This area presents significant challenges, but I believe we have made some meaningful progress.



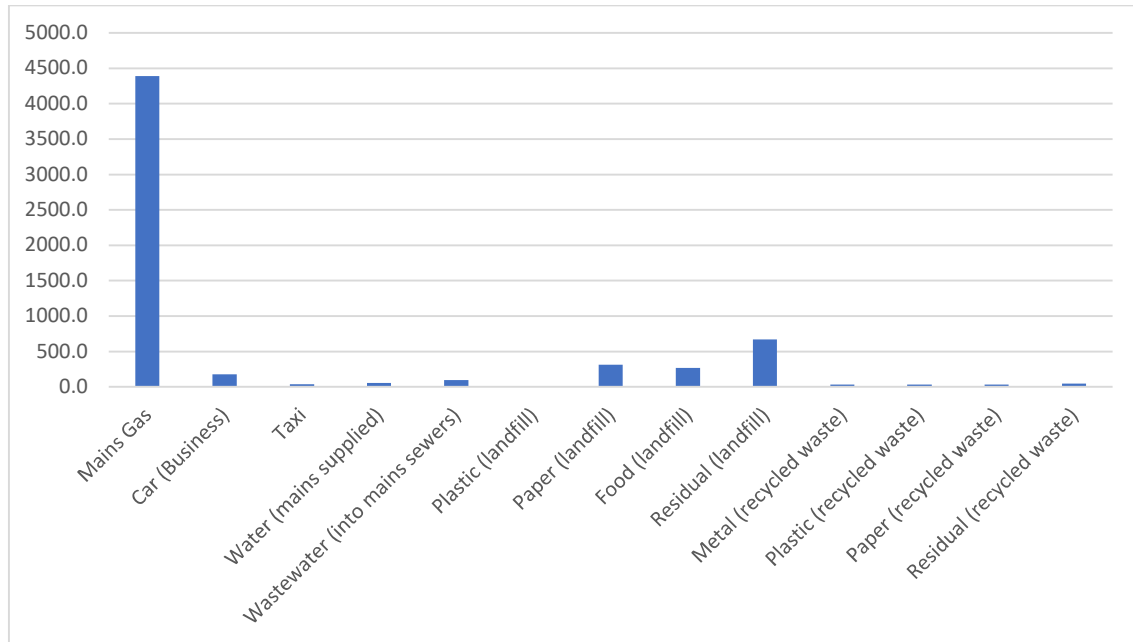
We encourage guests to use public transport when traveling to Sunnyside by offering perks such as priority early check-in and late check-out whenever possible. Additionally, we prioritize complimentary room upgrades for those arriving by public transport. These incentives don't come with a significant cost to us, but they are highly valued by our guests and help promote more sustainable travel choices. During 2022 83.1% of guests travelled to us by car in comparison to 74.3%. We believe the reduction would have been greater, however there were many train strikes during 2023 which meant some people travelled by car rather than by train.

Guest Travel – Post Arrival

Once guests have arrived at the Sunnyside, traveling around the town can be done on foot. If guests like to visit attractions a little further afield we have provided travel providing information about their travel choices and the impact it has upon their carbon footprint. Each method of travel is given a grade of A-E helping guests make the most sustainable choices. We also advise guests on the benefits of travelling around the Liverpool City Region on the exception train service provided by Merseyrail. Its cheap, no parking to find or pay for and its frequent and reliable service make it the stand out option of travel. Please head to our website to see an example of our [travel choices and their carbon footprint information](#) we provide for each attraction (see the green box on the right hand side of the page).

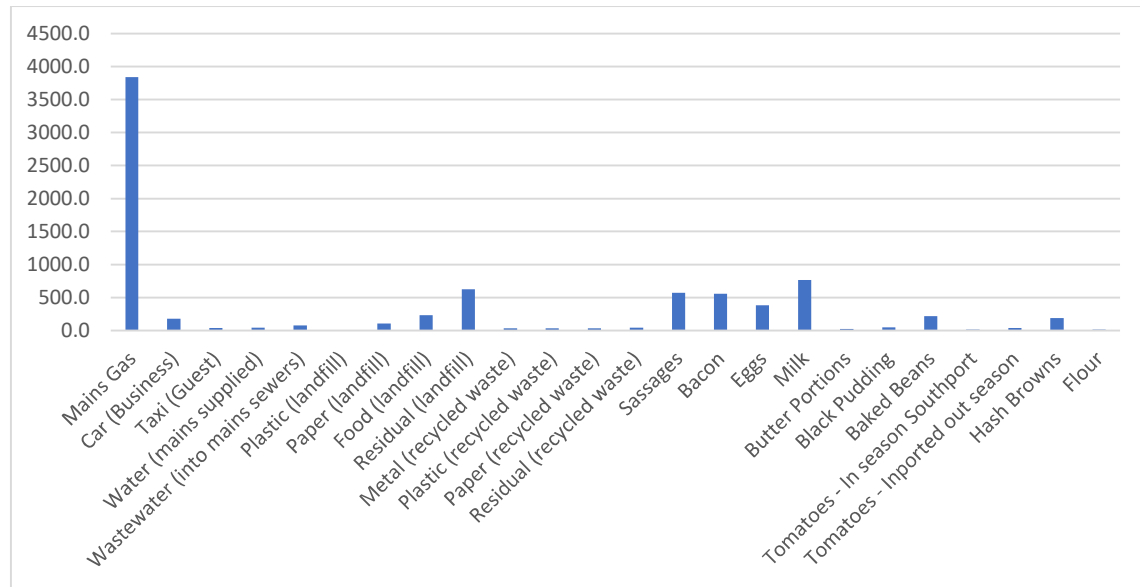
More information can be found on our [Sustainability Policy](#)

Sunnyside Carbon Footprint 2022 - Our Baseline Year



As shown in the table above, our Scope 1 emissions from mains gas are a significant concern. Additionally, our Scope 3 emissions related to items sent to landfill, including paper, food waste, and residual waste, are also notable. To address this, we have placed recycling bins in guest rooms to minimize landfill waste. Furthermore, we have taken substantial measures to prioritize reusable items over single-use plastic products. More information is available on [how we have avoided single use plastic](#)

Carbon Footprint 2023



Comparing the items measured across scope 1, 2 and 3 year on year our carbon has reduced from 6.139t Co2 to 5.272t Co2 which is a 16% reduction. This has mainly come from the large reduction in our scope 1 mains gas. We have extended our calculations for 2023 to cover carbon generated from our top 10 food items. This has generated 2.821t Co2e bringing our total carbon footprint to 8.076 t Co2e. We generated 767.2kg of Co2e through our consumption of milk and 569.6 kg Co2e for sausages, 559.0 kg Co2e, Bacon and 308.3 kg Co2e for eggs.

Roadmap to Net Zero by 2030 for Sunnyside Guest House

2024: Install Solar Panels, Complete Ceiling Insulation, reduce milk consumption

- **Solar Panel Installation:** We will install new solar panels and batteries at Sunnyside Guest House (subject to planning permission), capable of producing 9,200 kWh of electricity per year, far more than our current consumption of 4,548 kWh. This excess renewable energy will set us up to transition away from gas appliances, using clean electricity generated on-site.
- **Ceiling Insulation:** We'll also complete the insulation of the ceilings in the final bedroom room, which will help reduce heat loss and improve the overall energy efficiency of the building. This is an important step in lowering our heating demand and preparing for a new energy efficient heating system.
- **Reduce Food and Drink consumption:** We will look to provide our guests with smaller milk bottles for their in-room fridge to avoid waste. We will also be selling breakfast as an optional extra rather than including it in the cost of the room. Guest won't feel obliged to consume breakfast unnecessarily.

2025-2026: Replace Gas Appliances with Electric Alternatives

- Goal: In these years, we'll replace all gas appliances, such as the cooker, hob, and water heaters, with electric versions. By doing this, we can make good use of the surplus clean electricity generated by our solar panels.
- Impact: This will reduce our dependence on gas for everyday activities, though we'll still use gas to heat the property at this stage. It's a significant move toward running Sunnyside Guest House on renewable energy.

2027-2029: Additional Insulation and Energy Efficiency Improvements

- External Wall Insulation: We plan to insulate the external walls of the building to further reduce heating demand. We're considering cavity wall insulation, though we're mindful of potential issues like insulation bridging the cavity and causing damp. If necessary, we may opt to replace internal plasterwork with 50mm insulated plasterboard to enhance thermal efficiency without risking damp problems.
- Goal: These insulation upgrades will prepare Sunnyside for the final transition to electric heating by maximizing the building's energy efficiency and minimizing heat loss.

2029-2030: Install Air Source Heat Pumps

- Air Source Heat Pumps: By 2030, we'll replace the gas heating system with air source heat pumps. These will efficiently provide both heating and hot water using the clean electricity generated from our solar panels. It's the last big step in moving Sunnyside away from gas entirely. The air source heat pumps will ensure that Sunnyside Guest House is heated entirely by renewable electricity, complementing the work we've done to improve insulation and create clean electricity through our solar panels.

2030: Achieve Net Zero

- Net Zero Status: By 2030, Sunnyside Guest House will be running entirely on renewable energy. Our solar panels and air source heat pumps will power everything, from heating to appliances, ensuring we achieve net zero carbon emissions. It's the culmination of years of planning and upgrades, and we'll be proud to offer a completely sustainable guest experience.

This roadmap lays out how we will transition Sunnyside Guest House to a fully renewable-powered, net zero operation by 2030. Each step will help us cut down on energy use, reduce reliance on fossil fuels, and ultimately create a more sustainable future for the property.

The Target for 2024 - 2025

Initially, our primary focus on environmental performance was reducing energy consumption. This approach was attractive because it offered significant benefits with relatively low investment, allowing us to quickly lower our carbon footprint and realize a rapid return on investment.

In the next phase of our decarbonization efforts, we have shifted our focus from energy consumption to the source of the energy we use. Initially, we have transitioned our electricity contract to 100% renewable energy from Octopus, rated the top renewable electricity supplier by Ethical Consumer Magazine.

From a business perspective, transitioning all of our gas appliances to this contract is not sustainable due to the significant impact it would have on operating costs. To meet our 2030 target and ensure viability, we will need a substantial supply of low-cost electricity, which is where our solar panels and battery will play a key role.

As we are located in a conservation area and the solar PV array will be prominently positioned on the front of the building, we must obtain planning permission before installation. Due to space limitations and the need for maximum efficiency, the location of the panels cannot be changed.

If we receive permission for our solar panels we will work to get them installed as soon as possible and will start converting as many gas-powered cooking appliances to electric. We'll also transition our hot water heating from gas to electricity.

To prepare for the installation of the energy-efficient heating system, we will insulate the final bedroom ceiling.