



UK Government



# CARBON FOOTPRINT REPORT

for

Iffin Farmhouse

Baseline year –  
01.10.21 to 30.09.22

Authored by Andrew Stevens on 5 November 2022

SUSTAINABILITY AND BUSINESS SERVICES LTD - Working with Kent Invicta Chamber of Commerce

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## Introduction

### Project background

Government funding has been received to assist SMEs in Kent to receive decarbonisation advice. This advice includes:

- The delivery of a carbon footprint audit and production of an associated carbon footprint report (Scope 1 & 2 only)
- Information about the Government's net-zero strategy and direction of travel relevant to the SME environment
- Advice and tips on how to reduce carbon emissions
- Information and advice on carbon offsetting for those 'hard to reach' residual carbon emissions which cannot be realistically reduced by other means
- Encouragement to sign up to the Government's SME Climate Commitment

### Methodology

Depending on the SMEs preference, contact was made by the Decarbonisation Adviser via either a personal visit to their business premises or via an online meeting. At the initial meeting, it was explained what information and data would be needed to calculate the SMEs Scope 1 and 2 emissions. This was based on how the business operates and this was all explored in the initial meeting. A baseline year for calculating carbon emissions was agreed based on the circumstances of the business in question (the 1.4.20 to 31.3.21 year was used unless there was a specific reason why this was not a representative year for the business).

Carbon emissions were calculated based on the GHG (Greenhouse Gas) protocol accounting standards. Conversion factors used are the UK Government published factors for the year in question. Carbon emissions are illustrated in the format 'tCO<sub>2</sub>e' (tonnes of carbon dioxide equivalent). For purchased electricity, the 'location based' method was used to calculate emissions unless the SME was self-generating their own electricity on site.

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## Approach for Iffin Farmhouse

This is a business providing quality accommodation based near Nackington, just outside of Canterbury. The business consists of three self-catering apartments and up to three rooms in the main house.



We visited in person and were given a tour of all the apartments.

The premises operates on electricity and there is no mains gas supply to the buildings.

The accommodation is busier in the spring / summer months and less so in the autumn and winter.

The owner has placed sustainability at the centre of their operations and has implemented measures such as rainwater harvesting and insulation in the loft and has also planted a large number of trees within the grounds. It is estimated that around 70 trees have been planted over the last ten plus years and all will be absorbing carbon as they mature. We were told that the loft insulation is likely to be four inches in thickness.

Each apartment has a full range of kitchen appliances such as ovens, fridges, microwaves and additional heaters.

The property has LED lights in its internal spaces, but the external lighting to illuminate the pathways is not LED.

The apartments have all been equipped with wood-burning stoves. The owner told us that the wood is sourced locally. The apartments are also heated via underfloor heating.



There is one electricity meter covering the entire property. The owner told us that they wanted to get the apartments on their own meters in the future.

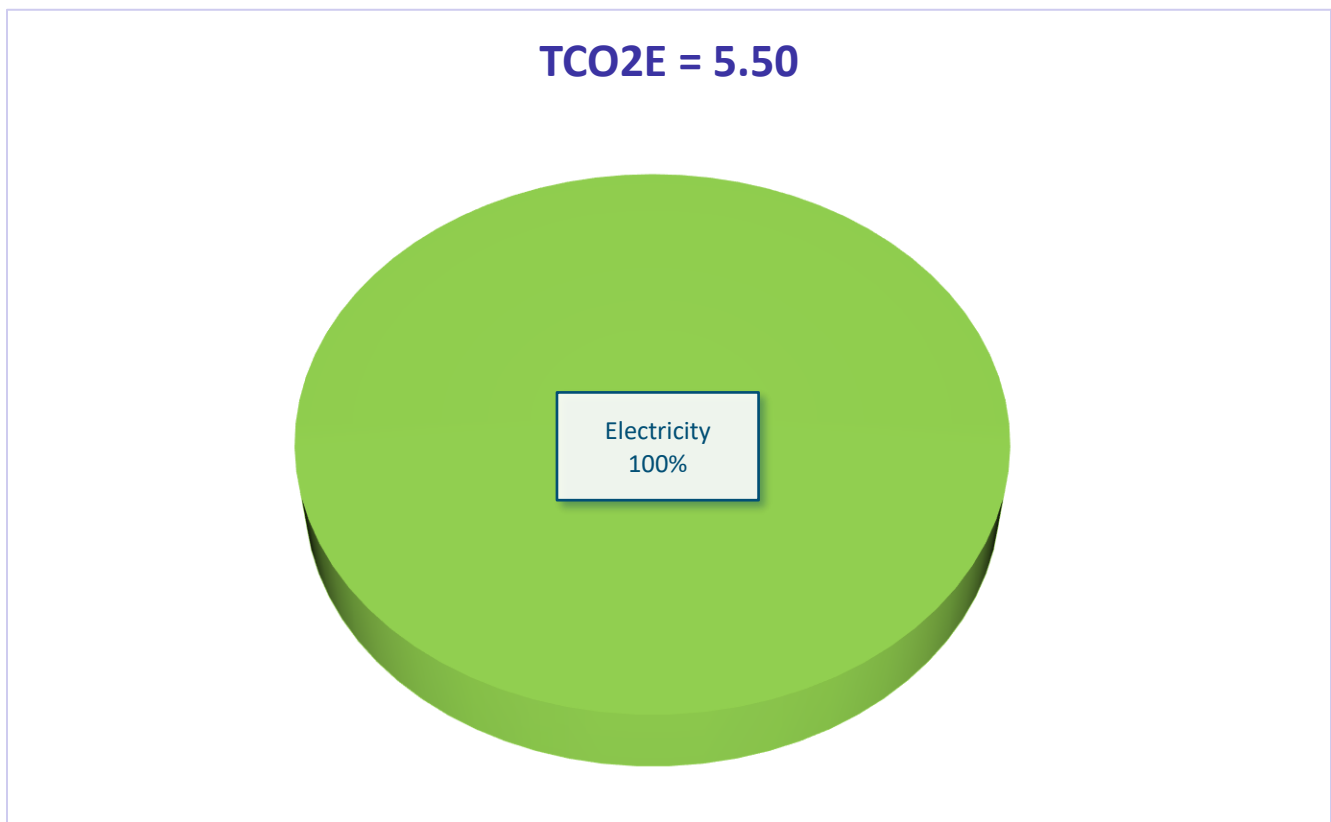
We were sent electricity consumption data for the period 1st October 2021 to 30th September 2022. The total consumption was 28,429 kWh.

The 2022 GHG conversion factors were applied to the calculation.

## Carbon footprint details for 01.10.21 to 30.09.22

Emission scope	Type	Units	Conversion factor	tCO2e
2	Electricity consumption	28,429 kWh	0.19338	5.50
			<b>TOTAL</b>	<b>5.50</b>

From this calculation, we can confirm that Iffin Farmhouse has a Scope 1 & 2 carbon footprint of **5.50 tCO2e** for the year 01.10.21 to 30.09.22.



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## Carbon emission reduction strategies

The carbon emissions are wholly attributed to electricity usage; we have therefore focused our carbon reduction plan accordingly.

The only lighting which hasn't been replaced with LED is the path lights to the cottage. We would recommend that these are changed to reduce the electricity consumption in this area.

We were told the washing machine is over ten years old and not energy efficient. As this machine is used mainly for washing sheets and other items for guests, we would recommend that this machine is replaced with a modern, energy-efficient model and that 'routine' washing is carried out at 30 degrees.

We were told that the loft is insulated with 4 inches of insulation - this equates to 100mm. The recommended insulation for loft spaces is 270mm. We would therefore recommend that insulation is purchased and installed in the loft to take the total insulation to the recommended 270mm.

As your business is based in the Canterbury City Council area, there may be grant funding available to help you reduce your carbon emissions. [Grants of up to £10,000](#) are available for eligible businesses to assist with energy efficiency measures which are based on recommendations made in this report. The project has to be completed by the end of November 2022 which will be a challenging timescale for all but the simplest projects.

Now that you are aware of your Scope 1 and 2 carbon emissions, I would also strongly recommend signing up for the [Government's SME Climate Commitment](#) to further publicise your work and ambition in this area. Once your commitment has been accepted you can refer to this on your website too.

In the coming years, I would also recommend reviewing your Scope 3 emissions (value chain / supply chain) so that a comprehensive view is obtained of your business from cradle to grave.

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## Carbon offsetting schemes

For emissions that are hard to reduce, or to move at a pace faster than the Government's plans to decarbonise the national grid, a legitimate avenue to explore is that of carbon offsetting.

Basically, carbon offsetting is where you compensate for your own carbon emissions by funding schemes that remove an equivalent amount of carbon (in the UK or elsewhere in the world). The sheer amount of carbon offsetting schemes can be overwhelming, but there are a couple of points worth remembering:

- Only consider offsets when it is unfeasible to reduce your emissions by any other way. It should be used as a last resort rather than a starting point.
- Use an offsetting scheme that carries accreditation by a recognised scheme. Examples of these schemes are the VCS (Verified Carbon Standard) and Gold Standard schemes.
- Bear in mind that the cost of carbon offsetting in verified schemes is likely to rise exponentially in the future, so it may become more expensive to continue to offset your emissions.

We were told that the business has planted around 70 trees. All of these trees are over ten years of age. On average, mature trees absorb 25kg of carbon per year, so for 70 trees, this would equate to 1.75 tonnes of carbon per year. This would have the practical effect of reducing your carbon footprint from 5.50 tonnes to 3.75 tonnes per year.

To offset the entirety of your carbon emissions, you would be looking at approximately a further 150 trees (once they achieve maturity and assuming all survive).

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## Statement for website:

At the initial visit, the company expressed a wish to publicise the report on its website with a short statement explaining the position regarding carbon emissions. I have therefore drafted something below which may assist:

*Iffin Farmhouse takes its environmental responsibilities seriously. We have worked with Sustainability and Business Services Ltd to calculate our carbon footprint for **Scope 1 and 2 emissions**. For the **baseline year of 01.10.21 to 30.09.22**, our gross carbon emissions were **5.50 tCO<sub>2</sub>e**. More details can be seen in this report.*

*We want to be a carbon-neutral business and the start of this journey was to calculate our Scope 1&2 emissions. Now this has been done, we will look to continue to reduce our emissions by switching to energy-efficient equipment and lighting. We will continue our tree planting scheme which is already offsetting significant portions of our emissions (these offset 1.75 tonnes of emissions). We will sign up to the Government's SME Climate Commitment to demonstrate our work and ambition in this area.*

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