

COMRIE CROFT

Case Study and Key Performance Indicators

People Places Passion – Our Mission is to make sustainability simple and rewarding and with the right approach it can be.

As we recognise the climate crisis we can tackle it with simple effective measures using appropriate technology, genuine reporting and positive accountable messages which will allow businesses to understand their impacts and present them to their stakeholders. This report summarises the main carbon related KPI's related to a small estate – Comrie Croft.

Earth-Rising Ltd was formed in 2020 as a new company supporting businesses in delivering Streamlined energy carbon reporting. This integrates with broader practical sustainable development Key Performance Indicators in seven main themes (hence seven main stars).

One key theme is carbon and this case study outlines the results of a carbon study completed in the spring of 2021. The company is made of a small team of assessors and associates with over 20 years experience of carbon assessments and reporting and the development of sustainability management systems for businesses.

We are seeking to recruit a small group of landowners who would like to work with us and share their journey to become leading sustainable businesses. We are developing a coaching service to help make the process as efficient as possible supported by a team of specialists we can call on as required. We all know we need to be most efficient with our resources.



COMRIE CROFT IS A 231-ACRE FARM IN RURAL PERTHSHIRE. IN 2008, AN EMPLOYEE-COMMUNITY-FAMILY BUYOUT ENABLED A NEW VISION TO BE SET OUT:

To bring about economic, environmental and community revival, using the land to create new mutually beneficial opportunities for enterprise, recreation, and sustainable living in harmony with nature.

Comrie Croft has the goal of achieving lasting rural regeneration. To achieve different priorities in different parts of Comrie Croft under six main

zones Community Enterprise, Sustainable Living, Permaculture Demonstration, Regenerative Farming, Eco-camping and Wild Woods.

For further information on Earth-Rising, contact the office or book a consultation at earth-rising.co.uk

**Comrie
Croft**

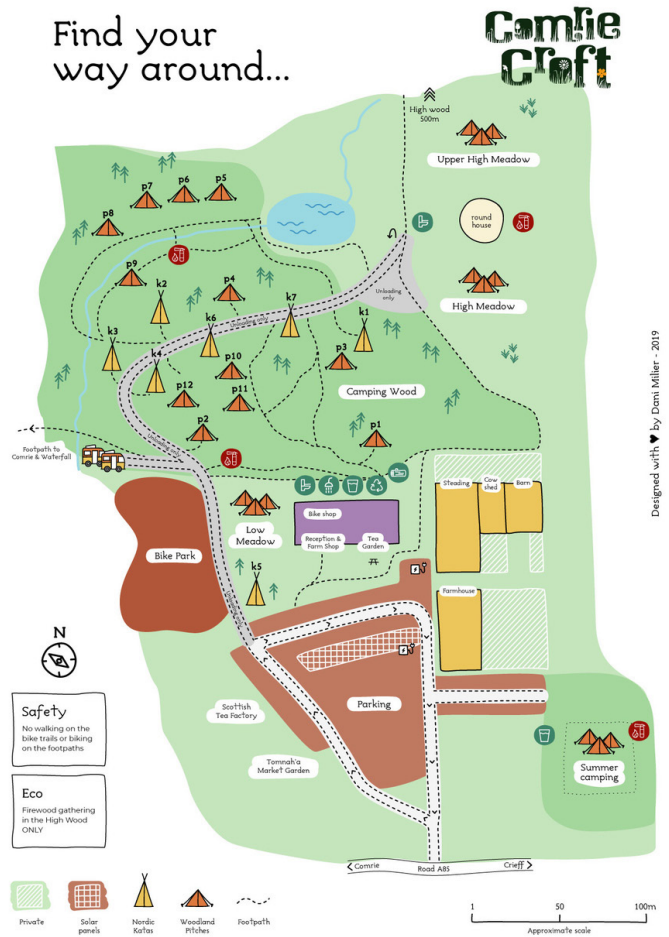


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Earth-Rising Ltd undertook a comprehensive review of the energy records of the site together with a site assessment of the existing practices and plans and as a result were able to track the recent history and predict the likely progress of the site over the next 20 years. Of course the Covid epidemic has drastically changed the existing picture but the long term trend is still very positive.

Comrie Croft Action Plan

- Permaculture/agroforestry training area
- Develop green wedding proposition
- Measure carbon performance of individual buildings & enterprises
- Create & develop wetlands for habitat and carbon sequestration
- Create a natural swimming pool for eco-campers
- Measure food related yields and assess carbon footprint
- Developing biodiversity indicators



Carbon KPIs

Carbon footprint based upon Scope 1 & 2 Emissions is 49.8 tonnes in 2019.

- Hospitality Benchmark – Excellent – 3kg CO₂ per bed night
- Economy and carbon intensity – Business earns £18.58 per kg CO₂ consumed
- Annual carbon sequestration through tree planting 31 tonnes per annum
- Solar system export 2020 equivalent to 2.5 tonnes CO₂ (based on UK electricity emissions)
- Significantly the electricity based carbon footprint was down by 88% compared to 1990 levels

Based upon changes in 2021 Comrie Croft will be Carbon Neutral by the end of the year.



Other KPI achievements

- 6500 trees planted over 10 years (2011-2021)
- 50 Hectares of natural rewilding
- 6 electric charge points

With these actions undertaken and verified, the following icons/attributes may be attributed to the organisation:



The team at Earth-Rising Ltd are creating a toolkit with a set of clear icons based around practical sustainability actions. The actions can be reviewed and shared as a consumer and go to help achieve one of 7 stars related to the programmes themes. The first stages of the app will be launched in November 2021. These are elements Comrie Croft are working on and developing already.

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TECHNICAL STATEMENT

"Information was verified through a site visit as well as a review of data provided. Energy supplier information was checked and tariffs reviewed with historical emissions. Fuel data and vehicle use information was gathered and analysed.

A baseline year was set for 2019 with some review of 2018 information. Analysis was taken of the data related to the solar array net output and aerial photos and land area under sequestration checked. Some issues remain related to predicting scope 3 emissions with new business plans/strategy.

As a result scope 1, 2, 3 based 2035 target remains difficult to assess and confirm and only future annual reports will be able to verify if this is on track. The existing changes taken place up to and including 2021 will result in the site achieving a net zero carbon impact by 2021 based on scope 1 and scope 2 emissions alone and the information provided on sequestration and rewilding."



Audited by J Proctor M.I.Env.Sc MICRS. March 2021

Further advice and technical information is available from Earth-Rising Ltd subject to data protection and site based commercial sensitivity.

Procedures for emissions are based upon DEFRA conversion factors with reference to the GRI standards for emissions calculations. Based upon the assessment there are no ozone depleting actions on site. No present site livestock meant no methane based emissions were included in the study. Sequestration calculations are based upon the annual average sequestration from the changes implemented over the life of the ecological changes. Further information on the process is available on request.

For further information on Earth-Rising, contact the office or book a consultation at earth-rising.co.uk

**Comrie
Croft**



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NET ZERO CARBON CERTIFICATE

EARTH RISING STATEMENT – JONATHAN PROCTER, CHIEF EXECUTIVE

“Comrie Croft is a leading sustainable business in Scotland. The organization has made sustainability a central part of the estates purpose and this is evidenced through tree planting, re-wilding, renewables, the development of eco-tourism and on-site food growing. The estate has achieved net zero during the lockdown based upon scope 1&2 emissions which should remain at zero in 2021 and beyond. The next part of the process will be to achieve this with the supply chain.”

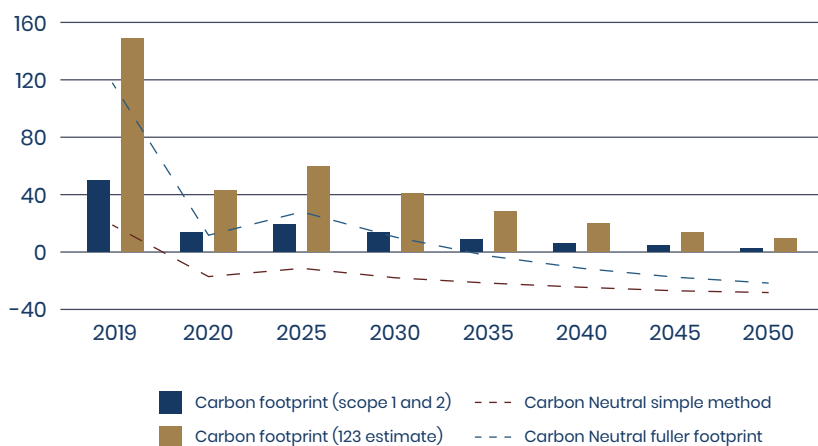


Hospitality benchmark
Excellent* 3kg CO₂ / bed night



Tree planting and solar deliver
31 tonnes carbon sequestered per year

Comrie Croft Journey to Net Zero



This graph demonstrates the carbon footprint of Comrie Croft in 2019 and 2020. The bars represent the carbon emissions and the line represents the balance between that emission and the annual sequestration achieved by the estate.

As you can see the graph shows that based on scope 1 & 2 Emissions the estate is already net zero or carbon neutral, Based upon an estimate of present supply chain elements it would be achieved by 2035 with scope 3 included.

AUDITOR STATEMENT

“Information was verified through a site visit as well as a review of data provided. Energy supplier information was checked and tariffs reviewed with historical emissions. Fuel data and vehicle use information was gathered and analysed. The baseline year was set at 2019 with further review of 2018 figures.”

*Excellent rating is based upon a study of green tourism businesses between 2010 and 2018 with benchmarks by SEA Ltd (GT standards agency)

Verified by Earth-Rising Ltd

March 2021



J Proctor M.I.Env.Sc MICRS. March 2021

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