# NFU Energy Carbon Footprinting



# WHAT IS A CARBON FOOTPRINT?

A carbon footprint is a way of accounting for the greenhouse gas emissions of a business, a product or a service through its entire lifecycle. Although we call it a carbon footprint, it also includes the other greenhouse gases of methane (CH4) and nitrous oxide (N2O), that are then presented as a carbon equivalent according to their Global Warming Potential.

### WHY DO PEOPLE NEED TO DO THIS?

Carbon emissions have increased dramatically in recent times – it is becoming common for purchasers to require suppliers to have a carbon footprint of the product they are selling. It is likely in the near future that there will be targets for products to be under certain parameters.

**ENERGY** 

# **CARBON ACCOUNTING STANDARDS**

The process of reducing emissions usually starts with carbon accounting. This is measuring the total greenhouse gas (GHG) emissions caused directly and indirectly by a site or a business and is expressed as tonnes of carbon dioxide equivalent. The carbon equivalent emission figure acts as a benchmark against which to measure the effect of various changes and improvements.

The most widely used accounting standard for carbon emissions is the GHG protocol. This splits emissions into three Scopes. **Scope 1:** Direct emissions from owned or controlled sources.

**Scope 2:** Indirect emissions from the generation of energy bought for own use.

**Scope 3:** All other indirect emissions (not included in Scope 2) that occur across the value chain of the business, as a result of both upstream and downstream activities.

Due to the complexity of reporting all three Scopes, it is common practice in carbon accounting to report only on emissions derived from Scopes 1 and 2. Sometimes these and the upstream emissions from Scope 3 are considered, this is referred to as 'from cradle to farm gate'.



# **NEXT STEPS**

Completing one of the carbon calculators on the market is a great way to measure the carbon footprint of your farm. Many carbon calculators provide a result in terms of carbon dioxide equivalent, with in depth information about the sources and sinks of farm emissions. You can also complete a bespoke calculation which will give you more detail and accuracy for better recommendations and comparisons to move forwards with.

## HOW IS CARBON FOOTPRINTING RELATED TO NET ZERO?

Net zero is a target for balancing GHG emissions to the emissions that are offset or sequestered. The NFU has an ambition for net zero by 2040: Achieving net zero – Farming's 2040 goal.

Net zero doesn't mean carbon zero, when no carbon emissions are released at all. The biological processes in agricultural production will always create emissions. It will be the combined effort of all farmers and growers in reducing emissions and increasing carbon stores that will bring the sector into balance.





#### How do you calculate my carbon footprint?

This depends on the complexity of your site and the method chosen. There are some carbon calculator tools available that you can input data to and they will calculate your emissions, or you can complete a bespoke calculation. Which method you chose will likely be dependent on the activities of your business and where you put the boundary of what you want to calculate.

#### Why do I need to know my carbon footprint?

There is a growing demand from buyers of produce (like supermarkets) who wish to know what the carbon emissions are of the product they are purchasing, this is becoming more common and as such suppliers will likely need to be able to supply this data for each of their products in the future. Knowing your carbon footprint can also be a useful marketing tool, and if calculated at regular intervals will allow you to manage it and highlight areas that need improvements.

#### Where's the data from, and how reliable is it?

This depends on what you are calculating your footprint on – for scope 1 & 2, data will likely come from things like gas and electricity meters, fuel records etc. If you are looking further into scope 3, different products and activities may have emissions factors that are already calculated and available for you to use within your calculation.

#### Why renewable energy?

By utilising renewable energy generation, you are able to reduce your emissions from the use of fossil fuel powered heat and electricity. After the initial offset of a renewable energy system is paid back, any heat or electricity generated from a renewable source will not produce any further emissions.

# I am only one person, can I really make that much of a difference?

If everyone makes positive steps towards lowering their carbon emissions, then the small changes can make big impacts.



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