




# Carbon Neutrality 101 – an Introductory Guide

Provided by **Rye**Strategy



Thank you for taking the time to learn more about corporate carbon neutrality. This package is meant to serve as an efficient guidebook to help you better understand the process. While the task may seem daunting, with the right resources, it can be **affordable, straightforward, and highly beneficial**. In the following pages, you will find information and guidance on the most important steps of the journey, including:

### 1) Why Carbon Neutrality Matters

- If we don't take action now, the consequences of climate change may soon be irreparable. Learn more about why carbon neutrality matters.

### 2) An Introduction to Carbon Footprinting

- Carbon footprinting can be a complicated process, involving multiple greenhouse gases and various corporate boundaries. Explore how your organization can start footprinting.

### 3) Insights into Methods for Offsetting Carbon Footprints

- In today's technological landscape, offsets are a necessary component of the neutrality process. Meet two of the industry's leading providers.

### 4) Direction on Mitigating Carbon Footprints

- A key component to neutrality is lowering (or mitigating) your year-over-year footprint. Delve into three key strategy sources for you and your organization.

### 5) Starting the Neutrality Process

- Interested in learning more about the neutrality process? RyeStrategy specializes in comprehensive neutrality for small to medium sized non-manufacturing organizations – contact us today.



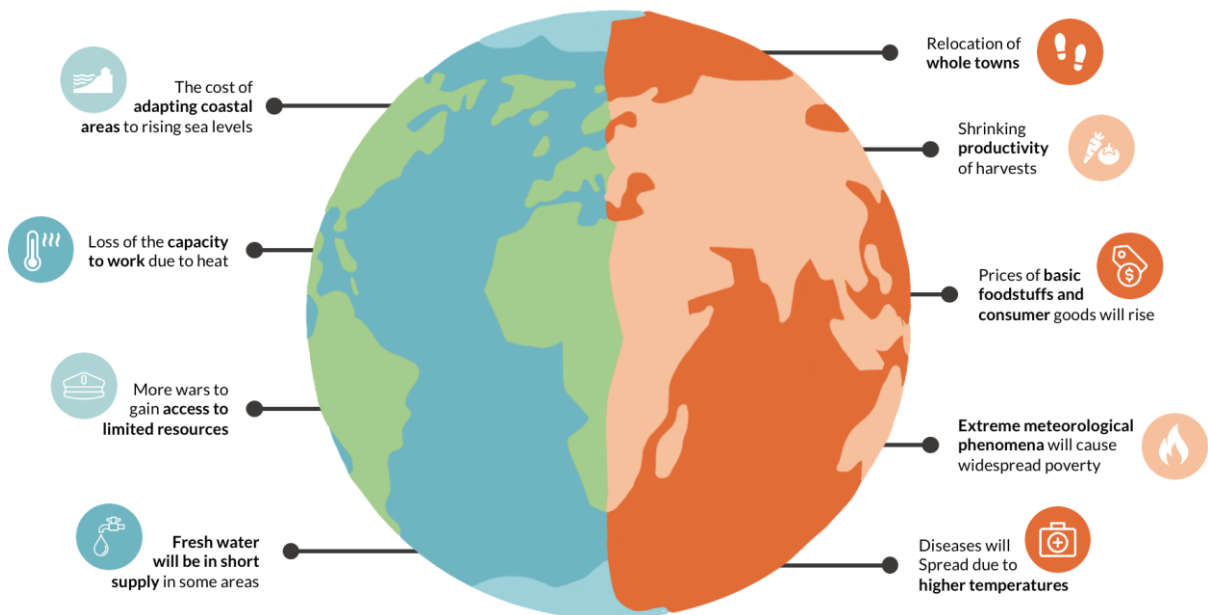
## Why Carbon Neutrality Matters

Without a clean environment, there will be no more “**business as usual**”. Greenhouse gas emissions, particularly carbon dioxide, are a primary contributor to the greenhouse effect, which traps solar heat energy within our atmosphere. This causes a variety of environmental changes, most notably, the general heating of our planet, sea rise, glacial melting, and soil depletion. *These effects can severely disrupt our ecosystems, food sources, lifestyles, supply chains, and general economic development.*

The Intergovernmental Panel on Climate Change has stated that humans need to [cut carbon dioxide emissions](#) 45% by 2030 to prevent irreversible climate damage.

We can already see its effects today: glaciers are [melting](#), the Great Barrier Reef is [dying](#), and in America, devastating wildfires have torn across the West Coast, [burning](#) millions of acres of land and creating severe respiratory [health risks](#) for thousands.

### Social and Economic Impact of Climate Change

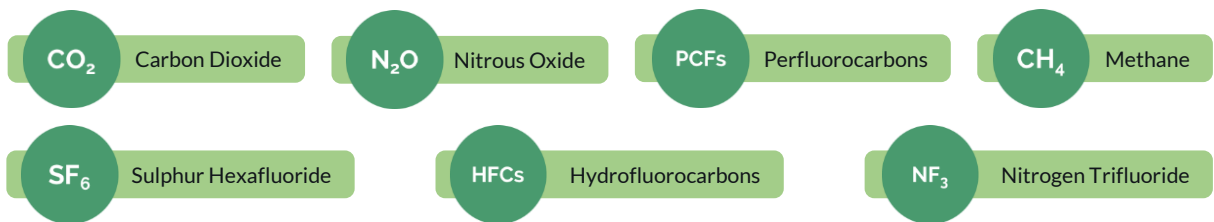


When thinking about greenhouse gas emissions, it can be easy to point to major contributors such as gas and agriculture, yet sources like transportation, electricity, and commercial overhead make up nearly [67% of total GHG emissions in the US](#). Without an effort to make considerable investments in carbon neutrality, the continuous rise in emissions can directly **threaten** the wellbeing of any business or industry, **including yours**.

## Carbon Footprints & the GHG Protocol

A carbon footprint is the sum of all emissions created by your organization's activities over a specific period of time, usually a calendar year. While CO<sub>2</sub>, or carbon dioxide, is the primary focus when it comes to global warming, your footprint is actually made up of several other environmentally damaging gases as well, which are converted into CO<sub>2</sub> equivalents (commonly referred to as CO<sub>2</sub>e).

### Covered Greenhouse Gases



Given the complicated nature of these emissions, numerous calculation methods have been devised over the years, however, the most commonly known and used technique is the [Greenhouse Gas Protocol](#), or the GHG. Currently, it is used by more than **9 out of 10** Fortune 500 companies who share sustainability metrics.

## Carbon Calculations

While highly data-intensive and time-consuming, the actual process of calculating your carbon footprint comes down to simple multiplication and addition.

For example, if your office used 401,595 kWh of electricity over the course of 2019 and is located in California, we can multiply this figure by its corresponding CO<sub>2</sub>e emissions multiplier, 0.653 lbs of CO<sub>2</sub>e / kWh, sourced from the [U.S. Energy Information Administration](#), and get a final result: 262,241.54 pounds of CO<sub>2</sub>e, or 118.95 metric tons.

## Key Sources

In order to provide an easily replicable and standardized process, the GHG Protocol has established a mutually exclusive yet collectively exhaustive framework for capturing all organizational CO<sub>2</sub>e emissions: the Scopes. A number of online guidance sources are available – we recommend utilizing information from the Greenhouse Gas Protocol website, as it is exhaustive and guaranteed to be correct.

- **Scope 1 information:** [https://ghgprotocol.org/sites/default/files/Guidance\\_Handbook\\_2019\\_FINAL.pdf](https://ghgprotocol.org/sites/default/files/Guidance_Handbook_2019_FINAL.pdf)
- **Scope 2 information:** [https://ghgprotocol.org/scope\\_2\\_guidance](https://ghgprotocol.org/scope_2_guidance)
- **Scope 3 information:** <https://ghgprotocol.org/scope-3-technical-calculation-guidance>

## Defining an Offset (Example)

With the present technology available, it is virtually impossible for an organization to operate at carbon neutrality without some type of external input. Most often, this input takes the form of [offsets](#): investments made in carbon-reducing projects, such as reforestation initiatives or cleaner cookstoves for refugees. Offsets are priced so that for each metric ton of CO<sub>2</sub>e emitted by an organization, a calculated dollar figure can be invested to directly **counteract** the emissions.

Take the previous example of your office's electricity usage: as we know, over the course of 2019, it emitted 118.95 metric tons of CO<sub>2</sub>e. The offset project [Alto Mayo Protected Forest](#), provided by Cool Effect, costs \$8.79 per metric ton of CO<sub>2</sub>e emitted. If the emissions from electricity are 118.95 metric tons of CO<sub>2</sub>e, and the offset cost per metric ton is \$8.79, you must invest \$1,045.57 (118.95 \* \$8.79) to counteract your CO<sub>2</sub>e output. By applying this process across your organization's entire carbon footprint, **carbon neutrality can be achieved**.

## How to Purchase Offsets

### RyeStrategy Recommendations

RyeStrategy has reviewed and partnered with multiple carbon offset providers — most reputable organizations with public records of their greenhouse gas data are **based in the U.S. and Europe**. From the following sources, you can purchase offsets for individuals or companies:



**Cool Effect:** Founded by Dee and Richard Lawrence in 2015, Cool Effect's carbon offsetting projects have reduced over [1 million tons of carbon emissions](#). Cool Effect's platform supports 15 carbon offsetting projects with a community of 500,000 members, project managers, individual supporters, and environmentally conscious businesspeople. Cool Effect offers specific carbon projects and pooled offset portfolios.

**Bonneville Environmental Foundation:** The Bonneville Environmental Foundation has kept [9.5 million metric tons of carbon](#) from the atmosphere with the help of its ecologically-committed partners. It has additionally generated over 6 million-Megawatt-hours of clean energy for communities with its initiatives and launched more than 250 renewable power educational programs across 20 states. Those who purchase offsets with the Bonneville Environmental Foundation have contributed to dewatered rivers and the revitalization of ecosystems all across the U.S. and Mexico.

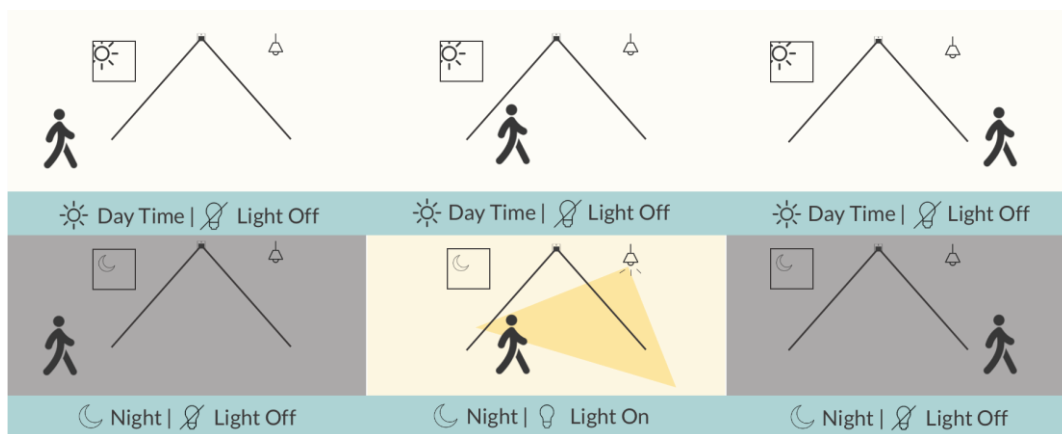


## Mitigation Strategies

Unlike offsets, which directly counteract a specific amount of CO<sub>2</sub>e emissions, mitigation strategies work to reduce your organization's carbon footprint by altering existing corporate practices. In doing so, greenhouse gas emissions, particularly carbon dioxide, can be significantly lowered, slowing the greenhouse effect.

Returning once more to the hypothetical example of your office's electricity usage, lighting makes up approximately [6% of greenhouse gas emissions worldwide](#). Energy is used to power all lighting in a building, and when lights are left on unnecessarily, it can result in **large utility bills** and **environmental damage**.

Many strategies can mitigate lighting emissions – in this instance, we'll focus on the installation of motion sensors; devices that turn off lights after a certain amount of inactivity. Motion sensors have been shown to increase energy savings by [up to 60%](#) according to an EPA study, and can operate based on the time of day, in addition to any detected movement. With this solution identified, your organization could hypothetically implement the strategy by making a purchase from numerous providers.



## Key Sources

Recognizing the different scales at which mitigation strategies can apply, from individual choices all the way up to high level organizational plans, is a crucial step as you lead your organization in the right direction toward climate sustainability. Listed below are mitigation strategies that can be implemented by your employees, teams, and company leadership.

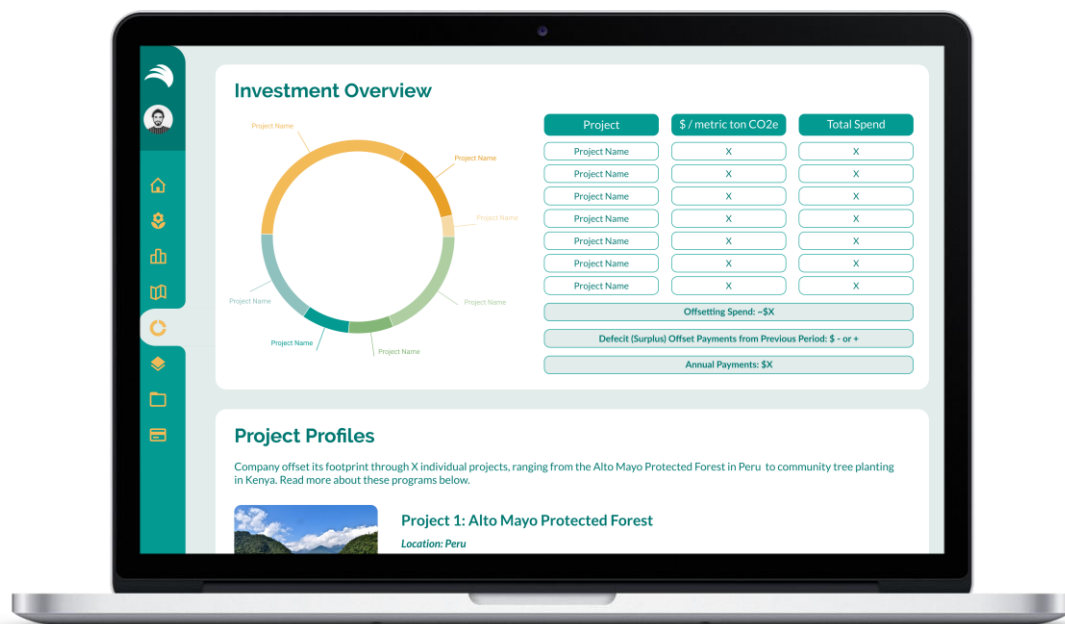
- **Big picture:** This article by the [Center for Climate and Energy Solutions](#) explores how businesses can address climate change through upper management planning and energy efficiency.
- **Big Picture:** Suzanne DiBianca's article in [Fast Company](#) emphasizes the importance of a focused organizational approach to setting climate and sustainability goals.
- **Individual Choices:** Michelle Wood's article on [Business.com](#) discusses various individual choices that employees can make and how they can be encouraged.

## Starting the Neutrality Process

We hope that the previous pages have shed more light on the carbon neutrality process: why it matters and how your organization can have an impact. While the task may seem daunting, with the right resources, it can be **affordable, straightforward, and highly beneficial**.

RyeStrategy is an environmental consultancy working to aid small to medium sized non-manufacturing organizations through carbon neutrality services. Our offering includes sustainability research, comprehensive carbon footprinting, mitigation strategies, offset portfolio creation, and advice on leveraging the results of neutrality.

## Corporate Carbon Neutrality, Simplified



In today's sustainability-oriented climate, **over 80%** of consumers expect businesses to do something about climate change, and **nearly 50%** are willing to shift their purchasing to more environmentally-friendly companies as a result.

Due to this paradigm shift in stakeholder demands, organizations who pursue carbon neutrality now stand to gain, with the process driving revenues, cutting operational costs, and in numerous locations, providing generous tax benefits, resulting from the offset purchases necessary for neutrality. Clients have reported that our comprehensive carbon neutrality package has not only allowed them to positively impact the environment, but also improve their core brand image, helping them to regularly win deals and retain customers, driving annual returns on investment as high as **368%**.

To start your carbon neutrality journey, please click [here](#), or contact us at [info@ryestrategy.com](mailto:info@ryestrategy.com)