



# 40 Frequently Asked Questions

A beginners guide to Carbon Neutral, offsetting, markets and the language and terminology used in the sector.

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## CONTACT US

**Australian Enquiries** 1300 851 211  
**International Enquiries** +61 8 9200 4424  
**Email** [contactus@Carbonneutral.com.au](mailto:contactus@Carbonneutral.com.au)  
**Visit** [carbonneutral.com.au](http://carbonneutral.com.au)

**Western Australia Office**  
Level 9, 197 St Georges Tce,  
Perth-Boorloo

**New South Wales Office**  
Level 3, 16b Honeysuckle Drive,  
Newcastle-Mulubinba

**Victoria Office**  
Suite 3, Level 1, 10-16 Forest Street,  
Bendigo-Dja Dja Wurrung

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## 1 What is a carbon credit?

A carbon credit, sometimes referred to as a carbon offset, represents the reduction or removal of one metric ton of carbon dioxide equivalent (t CO<sub>2</sub>-e) from the atmosphere.

Carbon offsetting involves the purchase of carbon credits, typically in an amount equal to the carbon emissions generated by an individual's or a business's activities. After making every effort to reduce emissions, buying carbon credits allows individuals and organisations to take responsibility for their climate impact and extend their climate action efforts beyond their immediate sphere of influence.

Australia has been identified as having one of the highest per capita carbon footprints on the planet, and therefore carbon offsetting through credits can be viewed as an important part of the toolkit to help mitigate the climate crisis.

## 2 What are carbon offsets?

Carbon offsets are generated by activities that either prevent, reduce, or remove greenhouse gas (GHG) emissions from the atmosphere. These offsets are measured in metric tonnes of carbon dioxide equivalent (t CO<sub>2</sub>-e), indicating one tonne of carbon offset equals one less tonne of carbon dioxide (or equivalent GHG) in the atmosphere.

## 3 What is an accredited carbon offset project?

Accredited carbon offset projects are assessed, verified and certified under regulated or voluntary standards. Projects must comply with each standard's process and methodology; they must undergo independent verification by accredited third parties and are usually subject to regular and ongoing review and auditing mechanisms. Accredited offsets can be used for both compliance and voluntary markets.

Unaccredited offsets do not necessarily comply with a Standard; the project developer can apply its own guidelines or protocols, and projects may not have undergone the same rigorous mechanism/s as accredited offsets. Unaccredited offsets can only be used in the Voluntary market.

## 4

## What certification standards does Carbon Neutral use?

Carbon Neutral is licensed to generate and trade in Australian Carbon Credit Units (ACCUs) that are issued under the Australian government's regulatory framework. We also trade in Certified Emission Reduction (CER) units issued under the Clean Development Mechanism (CDM). These carbon offsets can be used in both the compliance and voluntary markets.

Part of our reforestation project is certified under the Gold Standard Foundation Land Use and Forestry certification methodology (we are the only carbon project developer in Australia to have achieved this accreditation). The carbon offset credits that are generated are only issued after rigorous independent audits; the resulting Gold Standard Verified Emission Reductions (VERs) are issued by Gold Standard and can be traded on the international market. Verified Carbon Units (VCUs) are issued under the Verified Carbon Standard by Verra. Carbon Neutral sources other certified offsets for clients such as Verra VCS and United Nations' CDM CERs.

We also sell Biodiverse Reforestation Carbon Offsets (BRCOs) from our reforestation projects. These are generated in accordance with Carbon Neutral's own internal methodology but are not accredited by a recognised accrediting body. They are, however, assessed and verified by independent third-party auditors.



## 5 What is the Paris Agreement and the Kyoto Protocol?

### PARIS AGREEMENT

The Paris Agreement is a global treaty adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). It aims to combat climate change by limiting global warming to well below 2 degrees Celsius above pre-industrial levels, with an aspirational target of limiting it to 1.5 degrees Celsius. Countries that are parties to the agreement pledge to reduce their greenhouse gas emissions, enhance climate resilience, and provide financial support to developing nations. It emphasises a bottom-up approach, with each country setting its own climate targets and regularly reporting on progress.

### KYOTO PROTOCOL

The Kyoto Protocol is an international treaty adopted in 1997 under the UNFCCC. It established legally binding emissions reduction targets for developed countries (Annex I parties) during the first commitment period (2008-2012). These countries committed to reducing their greenhouse gas emissions collectively. The protocol introduced market-based mechanisms like emissions trading and the Clean Development Mechanism (CDM) to help countries meet their targets. The Kyoto Protocol is distinct from the Paris Agreement, which includes both developed and developing countries and employs a more flexible and voluntary approach to emissions reductions.

## 6 What is the 1.5 degree target?

The 1.5-degree target refers to the goal of limiting the increase in global average temperature to 1.5 degrees Celsius (1.5°C) above pre-industrial levels. This target is a critical component of international climate agreements and is often associated with the broader goal of addressing climate change and its impacts.

The 1.5-degree target is primarily linked to the Paris Agreement, a global treaty adopted in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). In the Paris Agreement, nations around the world agreed to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with an aspirational goal of limiting it to 1.5 degrees Celsius. This more ambitious target recognises that a 2-degree increase would still result in significant adverse effects on the planet, including more severe weather events, rising sea levels, and ecosystem disruptions.

Key points related to the 1.5-degree target.

### **RATIONALE**

The target of 1.5 degrees was included in the Paris Agreement due to mounting scientific evidence that even a 2-degree increase could lead to catastrophic consequences, particularly for vulnerable communities and ecosystems.

### **IMPACTS**

Limiting global warming to 1.5 degrees rather than 2 degrees is expected to reduce the severity and frequency of climate-related impacts, including heatwaves, extreme weather events, sea-level rise, and disruptions to ecosystems.

### **EMISSION REDUCTIONS**

Achieving the 1.5-degree target requires more aggressive and immediate actions to reduce greenhouse gas emissions globally. This includes transitioning to renewable energy sources, improving energy efficiency, and making significant changes in various sectors to decarbonise the economy.

### **ADAPTATION**

Despite mitigation efforts, some level of climate change is already locked in due to historical emissions. Therefore, adaptation strategies are also essential to cope with the unavoidable impacts of a changing climate.

### **GLOBAL COOPERATION**

Meeting the 1.5-degree target necessitates strong international cooperation and coordination to accelerate emissions reductions, provide support for vulnerable nations, and enhance climate resilience.

The Intergovernmental Panel on Climate Change (IPCC) has issued special reports on the 1.5-degree target, highlighting the scientific basis for the goal and the consequences of exceeding it. These reports have informed global climate policy discussions and efforts to address climate change, emphasising the urgency of action to limit global warming to 1.5 degrees Celsius.



## 7 What is meant by “pre-industrial levels”?

“Pre-industrial levels” refer to the average global temperature on Earth before the widespread industrialisation that began in the mid-18th century. It is essentially a reference point for measuring how much the Earth’s temperature has increased due to human activities, particularly the burning of fossil fuels (such as coal, oil, and natural gas), deforestation, and other industrial processes that release greenhouse gases into the atmosphere.

Pre-industrial levels are often used as a baseline because they represent a relatively stable and cooler period in Earth’s history before the significant increase in greenhouse gas concentrations. By specifying “1.5 degrees Celsius above pre-industrial levels,” it means that efforts are being made to limit the rise in global temperatures to no more than 1.5 degrees Celsius compared to what they were before the industrial era began. This goal is part of international climate agreements like the Paris Agreement and is aimed at mitigating the adverse effects of climate change.

## 8 Will offsetting enable the world to hit the >1.5-degree global temperature increase target?

Carbon offsetting alone is unlikely to enable the world to hit the target of limiting global warming to below 1.5 degrees Celsius above pre-industrial levels. Achieving this ambitious target requires a comprehensive and multifaceted approach to reducing greenhouse gas emissions, which goes beyond the scope of carbon offsetting.

### **EMISSION REDUCTION AT THE SOURCE**

The most effective way to limit global warming to 1.5 degrees is to reduce greenhouse gas emissions at their source. This involves transitioning away from fossil fuels, improving energy efficiency, adopting sustainable land-use practices, and making significant changes in various sectors, such as transportation, industry, and agriculture.



## **SYSTEMIC CHANGES**

Achieving the 1.5-degree target requires systemic changes in the global economy and energy systems. This includes a rapid shift to renewable energy sources, electrification of transportation, and the implementation of carbon capture and storage technologies where necessary.

## **NET-ZERO EMISSIONS**

Net zero targets require carbon offsets to cover residual emissions. Carbon offsets channel funding into avoidance, reduction and removal activity.

## **OFFSETTING**

Carbon offsetting, while valuable for addressing emissions from certain sources or activities that are challenging to eliminate completely (e.g., aviation emissions), has limitations. It cannot fully compensate for the emissions from sectors like heavy industry, which need to implement direct emission reductions.

Carbon offsetting allows organisations to compensate for their hard-to-abate greenhouse gas emissions that remain after reduction efforts.

## **EMISSION REDUCTION TRAJECTORY**

Hitting the 1.5-degree target also depends on the trajectory of emission reductions over time. Delayed action and relying heavily on offsetting can result in “locked-in” emissions that make it exceedingly difficult to achieve the target.

## **9** Are carbon offsets all the same?

No, carbon offsets are not all the same. Carbon offsets can vary significantly in terms of their quality, effectiveness, and environmental impact. The differences arise from factors such as the type of project, the standards and methodologies used, and the specific circumstances surrounding each offset.

Key factors that contribute to the variation in carbon projects and types of offset include:

### **PROJECT TYPE**

Offset projects can encompass a wide range of activities, including reforestation and afforestation, renewable energy generation, methane capture from landfills, energy efficiency initiatives, and more. The type of project can significantly impact the quality and effectiveness of the offset.

## **CERTIFICATION STANDARD**

Carbon offset projects are often certified by standards organisations that set specific criteria for additionality, emissions reduction methodologies, and verification processes. Common standards include the Gold Standard, Verified Carbon Standard (VCS), and the Clean Development Mechanism (CDM). The choice of standard can influence the credibility of the offset.

## **ADDITIONALITY**

A crucial aspect of a high-quality carbon offset is the concept of “additionality,” which means that the emissions avoidance, reduction or removal achieved by the project would not have occurred without the offset investment.

## **VERIFICATION AND MONITORING**

Rigorous verification and monitoring processes are crucial to ensuring that the offset project delivers the promised emissions reductions. Independent third-party audits are often used to verify the actual emissions reductions achieved.

## **LOCATION**

The location of the offset project can also impact its effectiveness. Projects in areas with high environmental value or that benefit vulnerable communities may be viewed more favourably.

## **CO-BENEFITS**

Some offset projects provide additional environmental or social benefits beyond emission avoidance, reduction or sequestration. These include biodiversity conservation, community development, or improved air and water quality. The presence of co-benefits can enhance the desirability of certain offsets.

## **PERMANENCE**

Concerns about the long-term permanence of emissions reductions from offset projects, particularly in projects involving forests or land-use changes. ‘Permanence’ is a measure of the long-term effect on human induced climate change (a key tenet of a high quality carbon credit).

## **TRANSPARENCY AND ACCOUNTABILITY**

The transparency and accountability of the offset provider and project are critical for building trust in the offset. This includes making project information and data publicly available.

Given these variations, it’s important for individuals, organisations, and companies to carefully assess the quality and credibility of carbon offsets they consider purchasing. Choosing reputable offset providers and projects that adhere to recognised certification standards and additionality criteria is essential to ensure that offsetting efforts contribute effectively to climate mitigation and environmental goals.

## **DOUBLE COUNTING**

Double counting in the carbon market occurs when the same emission reduction is claimed more than once, leading to an overestimation of actual reductions. This can happen through international transfers,

overlapping carbon credit standards, or participating in multiple carbon market mechanisms. To prevent double counting, robust monitoring, reporting, and verification, along with standardised protocols and clear rules, are essential. International cooperation is crucial to establish and enforce consistent accounting principles across different regions and carbon market mechanisms.

### LEAKAGE

In the context of a carbon project, 'leakage' refers to the unintended increase in greenhouse gas emissions in one location as a result of emissions reduction activities in another. Carbon projects, such as reforestation or afforestation initiatives, aim to sequester or reduce greenhouse gas emissions. However, if these projects inadvertently lead to an increase in emissions elsewhere, the overall environmental benefit may be compromised.

Leakage can occur due to various factors. For example, if a project restricts logging in one area, there might be a tendency for logging activities to shift to a nearby region, resulting in the release of stored carbon and offsetting the project's intended emissions reduction. Similarly, agricultural activities restricted in one area might move to another, causing indirect emissions.

To address leakage, carbon offset projects often incorporate measures to account for and mitigate potential unintended consequences. Careful project design, monitoring, and comprehensive accounting mechanisms are essential to ensure that the desired emissions reductions are achieved without causing environmental harm elsewhere.

## 10 What is the difference between an offset and a credit?

The terms "carbon offset" and "carbon credit" are frequently used interchangeably, but there is a subtle distinction. "Carbon credit" typically denotes a financial unit of measurement representing the removal of one metric tonne (1,000 kg) of carbon from the atmosphere.

On the other hand, "carbon offset" is more commonly employed when discussing the actual action or process. Whether it's termed a carbon offset or carbon credit, both serve the same purpose: offsetting emissions occurring elsewhere through actions such as reduction, avoidance, or carbon sequestration.

## 11 What is a vintage year?

The vintage year denotes the specific year when emission reduction occurred. Various projects release emission offsets annually, while others do so in multi-year intervals. Some offset buyers seek offsets that align in timing with the emissions they wish to offset. In these cases, offsets with a vintage year falling within 1-3 years of the emissions they aim to neutralise are considered preferable.

## 12 What are co-benefits?

Co-benefits encompass the favourable results arising from a carbon offset initiative that go beyond the direct reduction of greenhouse gas emissions. These additional benefits can span social, economic, and environmental benefits.

Instances of co-benefits encompass the generation of employment opportunities, improvements in public health, mitigation of various pollutants (aside from carbon), advancement of gender equality, preservation of biodiversity, and the promotion of education in indigenous communities.

Co-benefits frequently play a pivotal role in determining the attractiveness of carbon offset acquisitions. Many carbon offset project developers outline the co-benefits of their initiatives in terms of their contributions to the United Nations Sustainable Development Goals. As a reference, Carbon Neutral's Yarra Yarra Biodiversity Corridor project adheres to seven of the UN's SDGs.

## 13 What are Scope 1, 2, and 3 emissions?

The Greenhouse Gas Protocol is the primary Standard for reporting greenhouse gas (GHG) emissions. It provides basic guidelines for how companies should assess the carbon emissions associated with their own operations, as well as their upstream and downstream value chains. Emissions are categorised into three scopes:

### SCOPE 1

Scope 1 emissions are those generated directly from an organisation's operations. Examples include emissions from vehicle fuel combustion, the use of fertilisers in farming, or the combustion of other energy sources by the organisation itself.

### SCOPE 2

Scope 2 emissions are the emissions linked to the production of energy that the organisation consumes. This mainly involves the burning of coal at power stations to generate electricity for the organisation's use. It also includes the production of fuels and steam used by the organisation.

### SCOPE 3

Scope 3 emissions encompass indirect emissions both upstream and downstream in an organisation's value chain that aren't covered by Scope 1 and 2. This includes emissions related to the supply chain, such as those associated with the consumption of goods and services, commercial air travel, waste disposal, leased assets, and more.

Under Australia's compliant National Greenhouse and Energy Reporting (NGER) Scheme, only Scope 1 and 2 emissions are typically reported. However, it's essential to recognise that Scope 3 emissions (value chain emissions) can constitute a significant portion, up to around 90% in some instances, of a company's total emissions. This highlights the importance of considering Scope 3 emissions when developing a emissions reduction strategies.

## 14 How can do I know that emission reductions are authentic?

Established standards have been instituted to offer reassurance to purchasers regarding the genuine, measurable, and additional nature of emissions reductions originating from a specific project.

Respected standards deliver thorough, independently verified evaluations of the emission reductions achieved by a project. Carbon Neutral's keynote project, The Yarra Yarra Biodiversity Corridor was the first project in Australia to achieve the Gold Standard. The Gold Standard takes an extra stride by ensuring that all its projects adhere to stringent, conservative and robust methodology criteria and to 'do no harm' for promoting sustainable development within the local context.

To secure high-quality carbon offsets companies may choose to select offsets that have undergone rigorous third-party monitoring, reporting, and verification processes. Additionally, it proves advantageous to procure carbon credits from a reputable offset provider capable of providing transparency concerning project details, pricing, and the permanent cancellation ('retirement') of carbon credits.

## 15 What does “additionality” signify, and why is it of significance?

“Additionality” stands as a fundamental concept within carbon offset projects. For a project to qualify as a genuine carbon offset, the emissions reductions it achieves must be considered “additional” to what would have occurred if the project had not been implemented, such as continuing with business-as-usual practices. For example, if a project is financially viable on its own, perhaps through electricity sales or due to government funding, regulations, or other policies, it cannot serve as an offset project because it would have proceeded irrespective of funding secured through carbon markets.

The notion of additionality holds importance because only carbon credits originating from projects that exhibit “additionality” beyond the business-as-usual scenario bring about a genuine environmental benefit. Absent the requirement for “additionality,” there is no assurance that emissions reduction endeavours will result in an actual decrease in greenhouse gases released into the atmosphere. In simple terms, if carbon credits are granted for activities that would have occurred anyway, it permits emissions to increase without a corresponding reduction elsewhere, rendering the process ineffectual.

## 16 Aren't some fossil fuel projects happening off the back of offsetting?

Yes, there have been instances where fossil fuel projects or other environmentally damaging activities have been proposed or continued with the justification that they will be offset by investments in carbon offset projects.

This practice is often criticised for several reasons, including:

### **GREENWASHING**

It can be seen as a form of “greenwashing,” where companies or governments use offsetting as a public relations strategy to appear environmentally responsible while continuing to engage in activities that contribute significantly to climate change and environmental degradation.

### **LACK OF REAL EMISSIONS REDUCTION**

In some cases, the emissions reductions promised through offsetting may not be sufficient to fully compensate for the emissions generated by the fossil fuel project, particularly if the offset projects are not additional or are not properly verified.

### **DELAYED TRANSITION**

Relying on offsetting to justify fossil fuel projects can delay the necessary transition to cleaner and more sustainable energy sources and technologies.

### **SOCIAL AND ENVIRONMENTAL CONCERNS**

Fossil fuel projects often have associated social and environmental impacts beyond just carbon emissions. These impacts, such as habitat destruction, air and water pollution, and displacement of local communities, are not fully addressed by carbon offsetting.

### **INTEGRITY OF OFFSET PROJECTS**

The quality and integrity of carbon offset projects can vary, and there have been instances of poorly designed or implemented projects that do not deliver the promised emissions reductions.

To address these concerns and avoid the misuse of offsetting, it is important to adhere to best practices and standards in carbon offset project development. Additionally, regulatory bodies and international organisations are working to establish guidelines and criteria that ensure the transparency, additionality, and effectiveness of offset projects.

Ultimately, while carbon offsetting can play a role in mitigating emissions from challenging sectors, it should not be used as a sole justification for continuing or expanding fossil fuel projects. The primary focus should be on transitioning to cleaner and more sustainable energy sources and reducing emissions at the source to align with climate goals and address the root causes of climate change.

The Intergovernmental Panel on Climate Change (IPCC) highlights that relying on offsetting can lead to ongoing fossil fuel projects. Some groups, while investing in offsets to balance emissions, may use this to justify continuing fossil fuel activities. This raises concerns about the effectiveness of such projects in achieving real emissions reductions, emphasising the need for a comprehensive approach that combines offsetting with direct emissions reduction strategies to tackle the root causes of climate change.

## 17 What is the business justification for getting involved in carbon offsetting? How can it enhance business value?

Carbon offsetting enables an organisation to take responsibility for its unavoided emissions, reducing its impact on the environment and contributing to a cost-effective transition towards a low-carbon future. The benefits for an organisation can include:

- Gaining recognition for climate leadership as part of a broader ESG (Environmental, Social, Governance) or sustainability strategy.
- Responding to the demand from stakeholders, including consumers, employees and investors, to disclose and manage climate-related risks to the business.
- Establishing credibility by taking responsibility for the complete environmental impact and the associated costs to natural capital.
- Preparing for compliance with carbon pricing mechanisms, such as a carbon tax, in cases where companies may be exposed.
- Reducing commercial vulnerabilities arising from supply chain risks associated with climate change.

## 18 Could offsetting be seen as a licence to pollute?

Offsetting can potentially be seen as a “license to pollute” when it is used as a sole or primary strategy by individuals, organisations, or companies to justify continued high levels of greenhouse gas emissions without making sufficient efforts to reduce emissions at the source. This perception can arise from several reasons:

### **LACK OF EMISSION REDUCTION EFFORTS**

When entities rely solely on offsetting without making genuine efforts to reduce their own emissions, it can be seen as an excuse to continue polluting activities without taking responsibility for their carbon footprint.

### **DELAYED ACTION**

Offset projects may take time to implement and deliver their emissions reductions. Relying on offsets can be seen as delaying necessary emission reduction actions that should have been taken immediately.

### **PERCEIVED LACK OF ACCOUNTABILITY**

There can be a perception that offsetting allows entities to “buy their way out” of addressing emissions directly, leading to concerns about accountability and responsibility for environmental impact.

To avoid the perception of offsetting as a license to pollute and to ensure its effectiveness as a climate mitigation strategy, it is essential that offsetting is used in conjunction with meaningful emissions reduction efforts. Many carbon neutrality and offset programs recommend a hierarchy of actions, where emissions reduction at the source is prioritised, and offsetting is used as a supplementary measure for emissions that are difficult to eliminate directly.

Offsetting can play a valuable role in addressing emissions from activities that are challenging to decarbonise fully, but it should not be used as a justification for maintaining business-as-usual emissions levels without a commitment to genuine, sustained efforts to reduce carbon emissions. Transparency, accountability, and adherence to recognised standards for offset projects are crucial to ensure that offsetting is an effective and responsible component of a broader climate action strategy.



## 19 What is a Planned Emission Reduction (PER)?

Many projects aimed at climate protection require upfront funding and often engage in advance sales of Emission Reductions, meaning they secure sales before the actual issuance of the units. This practice is particularly pertinent in the context of land use projects due to their extended land purchase and planting cycles, which align with the time it takes to sequester CO<sub>2</sub> in forests and other carbon sinks. However, unmonitored advance sales do not offer adequate safeguards for buyers, increasing the risk of overselling expected outcomes and thus jeopardising environmental integrity.

The Gold Standard permits the registration of a specific quantity of anticipated emission reductions, based on scientific calculations following project performance certification, up to a five-year horizon. These registered units are termed 'Planned Emission Reductions' and are tradable but cannot be retired. Once the emission reductions have undergone verification, these units transition to 'Verified Emission Reductions' and can be retired and utilised to substantiate carbon or climate neutrality claims.

## 20 What is the difference between offsetting and abatement?

Offsetting and abatement are two distinct approaches to addressing greenhouse gas emissions, but they serve different purposes in the context of climate change mitigation.

### **OFFSETTING**

Offsetting is a practice that involves compensating for one's greenhouse gas emissions by investing in projects or activities that avoid, reduce or remove an equivalent amount of emissions elsewhere.

It is typically used by individuals, organisations, or companies to achieve carbon neutrality or reduce their net emissions to zero.

Offset projects can include reforestation, afforestation, renewable energy installations, methane capture from landfills, and more.

Offsetting is often seen as a way to mitigate emissions that are challenging or expensive to reduce directly, allowing entities to take immediate action to address their carbon footprint.

### **ABATEMENT**

Abatement refers to the direct reduction, avoidance or removal of greenhouse gas emissions at the source through various means and strategies.

It involves implementing measures and technologies to reduce emissions from activities such as energy production, transportation, manufacturing, and sequestration.

Abatement efforts aim to lower emissions before they enter the atmosphere, thus addressing the root cause of climate change.

Abatement measures can include energy efficiency improvements, transitioning to renewable energy sources, adopting cleaner industrial processes, and implementing sustainable land-use practices.

In summary, the key difference between offsetting and abatement is that offsetting involves compensating for emissions by investing in external projects, while abatement focuses on reducing emissions directly from the sources. Both approaches play important roles in climate change mitigation, with offsetting serving as a complementary strategy to abatement, especially when it is challenging to eliminate emissions completely from certain activities or sectors. However, the primary goal should always be to prioritise emissions abatement by reducing emissions at their source whenever feasible and economically viable.

## 21 Are businesses and organisations that offset less likely to reduce their emissions?

The relationship between businesses and organisations that offset emissions and their efforts to reduce emissions can vary widely depending on its individual motivations, commitments, and practices.

It is not universally true that organisations that offset emissions are less likely to reduce their emissions. However, businesses that offset emissions may still lack sufficient internal incentives or regulatory pressures to reduce emissions at the source. Offset initiatives can become a way to compensate rather than drive direct emission reductions. Additionally, some entities might view offsets as a simpler, immediate solution, diverting attention from the more complex task of internal emission reduction strategies. The effectiveness of offset initiatives depends on the commitment of organisations to comprehensive sustainability practices and regulatory frameworks that incentivise emissions reduction rather than solely relying on offsetting measures.

### **COMPLEMENTARY STRATEGIES**

Many businesses and organisations use carbon offsetting as a complementary strategy to emission reduction efforts. They may recognise that certain emissions sources are challenging or costly to eliminate entirely, and offsetting allows them to take immediate action to neutralise their carbon footprint while continuing to work on near term (and/or net zero) emission reduction strategies.

### **OFFSETTING AS A FIRST STEP**

Some organisations may start with offsetting as a first step in their sustainability journey. Over time, as they gain experience and resources, they increase their focus on emission reduction initiatives.

### **COMMITMENT TO REDUCTION**

The cost of offsetting is a financial incentive to reduce emissions. Studies have shown that organisations that offset emissions have more aggressive reduction action on reducing their footprint. The effectiveness of offsetting as a strategy is often linked to the commitment of the business or organisation to reduce emissions. Those with a strong commitment to sustainability are more likely to use offsetting as one tool in their overall emissions reduction strategy, rather than a substitute for direct action.

## **REGULATORY AND STAKEHOLDER PRESSURE**

Regulatory requirements, industry standards, and pressure from stakeholders and staff can influence a business or organisation's approach to offsetting and emission reduction.

## **TRANSPARENCY AND ACCOUNTABILITY**

The transparency and accountability of a business or organisation in disclosing its emission reduction efforts and offsetting practices play a significant role. Entities that are transparent about their offsetting activities and their commitment to reducing emissions are more likely to be viewed positively by stakeholders.

## **CONTINUOUS IMPROVEMENT**

Many businesses and organisations aim for continuous improvement in their sustainability efforts. This may involve setting more ambitious emission reduction targets, investing in cleaner technologies, and implementing energy efficiency measures, in addition to offsetting.

In summary, whether businesses and organisations that offset emissions are less likely to reduce their emissions depends on their specific circumstances, motivations, and commitments. Carbon offsetting and claims of carbon neutrality can be a valuable tool in a broader sustainability strategy, but it is most effective when used in conjunction with direct efforts to reduce emissions at the source. Ultimately, the key is for businesses and organisations to adopt a holistic and proactive approach to addressing their carbon footprint and working towards a more sustainable future.

Achieving a net-zero emissions target by the year 2050 or sooner is imperative to avert catastrophic consequences of global warming. The urgency of this goal stems from the need to curtail the escalating impacts of climate change, ranging from extreme weather events to rising sea levels. By transitioning to a net-zero emission state, where the amount of greenhouse gases released into the atmosphere is balanced by removal or offsetting measures, we aspire to stabilise the Earth's climate. This ambitious target requires a concerted global effort, necessitating comprehensive strategies, technological innovations, and sustainable practices to mitigate the threats posed by unchecked climate change and foster a more sustainable future for generations to come.

## **22** Are offset prices too high?

The price of carbon offsets can vary significantly depending on various factors, including the type of offset project, the certification standards used, the location of the project co-benefits, and market dynamics. Whether offset prices are "too high" is subjective and can depend on several considerations:

**Cost of Emission Reduction:** The price of carbon offsets reflects the cost of reducing or removing a specific amount of greenhouse gas emissions. The cost of implementing emission removal projects, such as reforestation, can be relatively high due to the capital resources required and time lag.

## **MARKET DEMAND**

Carbon offset prices can be influenced by supply and demand dynamics in the carbon market. If there is strong demand from investors for particular offsets, prices may rise. Conversely, if demand decreases or if more offset projects become available, prices may stabilise or decrease.

## **PROJECT QUALITY AND IMPACT**

The price of an offset can also be influenced by the quality and environmental impact of the offset project. Carbon projects of superior quality, exhibiting clear additionality, robust, conservative methodologies, and showcasing co-benefits, often command premium prices.

## **LOCATION**

The location of the offset project can affect prices, as the cost of implementing projects can vary by region due to factors such as labour costs, land prices, and local regulations.

## **TRANSPARENCY AND OVERHEAD**

The degree of transparency and administrative overheads associated with the offset provider can also influence prices. Providers that invest in rigorous third-party verification and reporting may have higher associated costs.

Whether offset prices are considered “too high” or not depends on individual perspectives and the context in which they are used. Some argue that higher prices are necessary to ensure that offset projects are of high quality and effectively contribute to emissions reduction goals. Others may be concerned that high prices could deter individuals or organisations from participating in offset programs.

It's important for individuals, organisations, and policymakers to carefully evaluate the cost-effectiveness of carbon offsets in the context of their broader climate mitigation and sustainability strategies. Additionally, efforts to increase transparency and standardisation in the carbon offset market can help ensure that prices accurately reflect the environmental impact of offset projects.

Carbon removal projects, like reforestation, are often deemed the most effective for mitigating emissions. With increasing governmental demands for stringent emissions reductions, particularly in compliance markets, the demand for carbon credits—especially from removal projects—will likely exceed current global production levels.

## Does the money I pay for carbon offsets go straight to projects?

The extent to which the money you pay for carbon offsets goes directly to projects can vary depending on the offset provider and the specific project in question. Here are some key considerations:

### **OFFSET PROVIDER**

Different offset providers may have varying approaches to handling the funds from offset purchases. Some providers may allocate a significant portion of the funds directly to the offset project, while others may retain a portion for administrative costs, marketing, and overhead.

### **ADMINISTRATIVE COSTS**

Offset providers may deduct a percentage of the funds for administrative expenses, including project verification, monitoring, and certification costs, as well as the cost of running the offset program. These costs may be ongoing and can vary widely between providers.

### **MARKETING AND OUTREACH**

Some offset providers invest a portion of the funds in marketing and outreach efforts to promote carbon offsetting and raise awareness about their projects. These activities are aimed at encouraging more individuals and organisations to participate in offset programs.

### **PROJECT FUNDING**

The remaining funds are typically directed toward the carbon offset projects themselves. These projects can include activities like reforestation, renewable energy development, methane capture, and energy efficiency initiatives.

### **PROJECT TYPES**

The percentage of funds allocated to projects may also depend on the type of offset project. For example, projects that involve planting trees or restoring forests may require ongoing maintenance and monitoring, which could affect the allocation of funds.

### **THIRD-PARTY VERIFICATION**

Many reputable offset providers use third-party verifiers to ensure the transparency and accuracy of emissions reductions and the allocation of funds to projects. This verification process can add to the overall costs.

It's essential to research and choose a reputable carbon offset provider that provides clear information about their fee structure and how funds are allocated to projects. Look for providers that adhere to recognised certification standards, such as the Gold Standard, Verified Carbon Standard (VCS), or Clean Development Mechanism (CDM), as these standards often have strict guidelines regarding the use of funds for offset projects.

Transparency and accountability are crucial when selecting a carbon offset provider to ensure that your financial contribution effectively supports emissions reduction and sustainability initiatives.

## 24 Why are some carbon offsets criticised?

Carbon credits, also known as carbon offsets, are not without their criticisms, which stem from various concerns and challenges associated with their use. Some of the main reasons why carbon credits are criticised include:

### **ADDITIONALITY AND PERMANENCE CONCERNS**

One significant criticism revolves around the concept of “additionality,” which questions whether carbon reduction projects financed by carbon credits would have happened anyway without the financial incentive. Critics argue that some projects might be business-as-usual practices or have uncertain emissions reductions. Additionally, there are concerns about the permanence of carbon sequestration projects, as emissions can be released if trees are cut down or if stored carbon in soils or geological formations is released.

### **LACK OF REGULATION AND VERIFICATION**

The carbon offset market lacks standardised regulation and verification mechanisms across different certifying bodies and projects. This fragmentation is being addressed as it can lead to discrepancies in the quality and effectiveness of carbon credits, making it challenging for consumers to trust their environmental impact.

### **DOUBLE COUNTING AND LEAKAGE**

Concerns exist about double counting emissions reductions, where multiple across-border entities claim the same reduction in emissions as their own. Additionally, carbon offset projects may unintentionally displace emissions to other areas or sectors, known as leakage, undermining the net benefits of the projects. This is being addressed under Article 6 of the Paris Agreement.

### **LACK OF TRANSPARENCY AND ACCOUNTABILITY**

Transparency issues, such as a lack of publicly available information about some carbon offset projects, make it difficult for stakeholders to assess their effectiveness and credibility. Critics argue that greater transparency and accountability are necessary to build trust in the carbon offset market.

Respected voluntary and compliance standards continually enhance their methodologies. The Integrity Council for the Voluntary Carbon Market (ICVCM), a global initiative, has recently introduced their Core Carbon Principles (CCP). These principles establish the foundation for high-quality credits that generate tangible, verifiable climate impact, aligning with the latest science and best practices.

### **ETHICAL AND SOCIAL CONCERNS**

Some carbon offset projects have raised ethical and social concerns, such as land acquisition practices, displacement of local communities, and negative impacts on indigenous peoples’ rights and livelihoods.

### **MARKET VOLATILITY AND SPECULATION**

The carbon offset market can be subject to price volatility and speculation, which may not always align with the environmental goals of emissions reduction.

It's important to note that these criticisms have led to efforts to improve the transparency, additionality, and overall effectiveness of carbon offset programs. Various organisations and standards have emerged to address some of these concerns and create more rigorous guidelines for carbon offset projects. Nevertheless, the criticisms highlight the complexities and challenges associated with relying on carbon credits as a tool for mitigating climate change.

## 25 What is the difference between a regulated carbon market and a voluntary carbon market?

A regulated carbon market and a voluntary carbon market are two distinct mechanisms for purchasing carbon credits, but they differ in their primary purposes, compliance requirements, and regulatory oversight.

### **PURPOSE OF REGULATORY FRAMEWORK**

A regulated carbon market operates within a regulatory framework established by a government or international agreement. These markets are designed to help countries or regions meet legally binding emission reduction targets. Examples include the European Union Emissions Trading System (EU ETS) and compliance market under the Kyoto Protocol. Australia has a compliance market that large emitters may have an obligation by law under the Safeguard Mechanism.



### **VOLUNTARY CARBON MARKET**

The voluntary carbon market is not driven by regulatory mandates but rather by the voluntary actions of individuals, organisations and companies to mitigate their carbon footprints. Participants in this market choose to purchase carbon offsets as part of their sustainability and ESG initiatives.

Individuals and organisations participate because they wish to offset their emissions voluntarily or demonstrate their commitment to sustainability. There are no legal obligations to participate, and non-participation does not result in penalties. Some companies now have to offset GHG emissions if they want to trade or sell their goods into certain jurisdictions, such as the European Union.

### **COMPLIANCE VS. VOLUNTARY PARTICIPATION**

Participants in a regulated carbon market are obligated by law or regulation to reduce their greenhouse gas emissions to meet specific targets. They may use carbon credits (emission allowances) to comply with these obligations. Non-compliance can result in penalties.

### **REGULATORY OVERSIGHT**

Regulated Carbon Market: Regulatory authorities oversee and enforce compliance with emissions reduction targets and trading rules. These markets are subject to government oversight and are legally binding.

### **CARBON TAX**

A carbon tax is a fiscal policy tool implemented by governments to curb greenhouse gas emissions. It involves placing a tax on the carbon content of fuels, typically in proportion to the amount of carbon dioxide or other greenhouse gases they emit when burned.





## 26 Is there a difference in size between the regulated carbon market and the voluntary carbon market?

Projects eligible for carbon credits in regulated markets must meet specific criteria outlined by government regulations or international agreements. Regulated markets will often dictate the eligibility of certain types of credits and only allow certain certification Standards. Regulated carbon markets tend to be larger and have a more significant impact on emissions reductions because they are driven by legal requirements and cover larger emitters.

Voluntary carbon offset projects can cover a broader range of activities and sectors, including reforestation, afforestation, renewable energy, methane capture, standards and more. The flexibility allows participants to choose projects that align with their values and sustainability goals. While the voluntary carbon market is smaller in scale compared to regulated markets, it plays a valuable role in encouraging emission reductions and raising awareness about climate change mitigation. It often funds projects that might not have existed without voluntary support.



## 27 What are the regulatory bodies associated with the carbon market in Australia?

### **CLEAN ENERGY REGULATOR (CER)**

The Clean Energy Regulator is the primary regulatory authority overseeing various aspects of Australia's carbon market. It administers schemes legislated by the Australian Government for measuring, managing, reducing or offsetting carbon emissions; these are the National Greenhouse Energy Reporting Scheme (NGER), The Emissions Reduction Fund (ERF), The Renewable Energy Target (RET) and the Australian National Register of Emission Units

The CER is responsible for the issuance, auctioning, and tracking of carbon units and Australian Carbon Credit Units (ACCUs), which are used in compliance and offsetting activities.

### **AUSTRALIAN SECURITIES AND INVESTMENTS COMMISSION (ASIC)**

ASIC oversees aspects of the financial markets in Australia, including the trading of carbon units and financial derivatives associated with the carbon market and administration of Australian Financial Services Licences.

### **AUSTRALIAN COMPETITION AND CONSUMER COMMISSION (ACCC)**

The ACCC monitors compliance with price caps and other regulatory measures in the carbon market to prevent price manipulation or anticompetitive behaviour.

### **DEPARTMENT OF THE ENVIRONMENT AND ENERGY**

The Department of the Environment and Energy, within the Australian government, plays a policy and administrative role in the development and implementation of carbon market-related policies and programs.

## 28 How does collaborating with Carbon Neutral benefit the environment?

Engaging with Carbon Neutral offers several environmental advantages, including:

- Assessing your carbon footprint and adopting energy-saving tactics can diminish your influence on climate change.
- Participating in the creation of reforestation carbon offsets decreases carbon levels in the atmosphere, aiding in the gradual reduction and eventual reversal of global warming.
- Supporting the Plant-a-Tree initiative aids in the restoration of biodiverse Australian habitats and contributes to the expansion of a natural carbon-absorbing area.

## 29 Does reducing carbon emissions save money?

Efforts to improve operational efficiency and reduce your carbon footprint can lead to cost savings. Once you've identified your carbon footprint, it's advisable to develop a carbon management plan with set targets and outcome measurements. This typically enhances efficiency, reduces expenses, enhances your public image, and, importantly, benefits the environment. Near-term targets outline how organisations will reduce their emissions, usually over the next 5-10 years. These targets galvanize the action required for significant emissions reductions to be achieved by 2030.

## 30 Which countries does Carbon Neutral work in?

Carbon Neutral collaborates with organisations globally to offset their emissions - climate issues know no borders. In addition to generating carbon offsets from our Australian projects, we source international offsets from various countries, both developed and developing nations.

## 31 Is my purchase tax deductible?

While the purchase of trees or carbon offsets may qualify as a tax-deductible business expense, buyers should seek independent tax advice for clarification.

## 32 What are accredited/unaccredited offsets?

Accredited carbon offset projects adhere to strictly regulated global standards, complying with the Kyoto Protocol Mechanism. These projects meet stringent criteria, undergo independent verification by accredited third parties, and face regular review and auditing. Accredited offsets may be accepted in both the Compliance and Voluntary Markets.

Unaccredited offsets, on the other hand, do not have to adhere to specific standards and are subject to project developers' guidelines or protocols. They may not have undergone the same rigorous processes as accredited offsets and are only accepted in the Voluntary market.

### 33 What certification standards does Carbon Neutral utilise?

Carbon Neutral is licensed to generate and trade Australian Carbon Credit Units (ACCUs) under the Australian government's regulatory framework; Australian Financial Services Licence (451004). We also trade Certified Emission Reduction (CER) units issued under the United Nation's Clean Development Mechanism (CDM). These credits are accepted in both the compliance and voluntary markets.

Carbon Neutral has a reforestation project is certified under the Gold Standard Foundation Land Use and Forestry certification methodology. Carbon offset credits, known as Gold Standard Verified Emission Reductions (VERs), are issued following rigorous independent audits and can be traded on the international market.

Carbon Neutral sources other certified offsets for our clients, such as Verra VCS and United Nations' CDM CERs.

We also offer Biodiverse Reforestation Carbon Offsets (BRCOs) generated according to our internal methodology, although they are not accredited by a recognised body. These offsets are independently assessed and verified by third-party auditors.

### 34 Why trees?

Trees absorb carbon dioxide from the atmosphere in their woody biomass and release oxygen, purifying the air we breathe. They also filter our drinking water and provide habitat for over 80% of the world's terrestrial biodiversity.

Forests offer employment to over 1.6 billion people and contribute essential ingredients to one-quarter of all medicines. Furthermore, trees help control water in flood-prone areas and serve as homes for numerous species.

### 35 What species do you plant, where and when?

Species planted are predominantly drought-tolerant Eucalypts and woody-stemmed Acacias that are endemic to the area. We now regularly plant over 60 species of trees and shrubs to encourage biodiversity. Although Carbon Neutral now have planting sites throughout the country, many of the company's planting sites are located within the *Yarra Yarra Biodiversity Corridor* in the Southwest Australia Ecoregion. Over 90% of the land was cleared for traditional farming in parts of the region during the early part of the twentieth century. This ensures adequate water availability to give the trees and shrubs a great start.

## 36 How is carbon measured in trees?

Carbon is stored in trees through the process of photosynthesis. Approximately half of a tree's dry weight consists of carbon, with one tonne of carbon equivalent to 3.67 tonnes of 'carbon dioxide equivalent' (t CO<sub>2</sub>-e).

For our Gold Standard project, we do on-ground measurement of biomass and woody biomass, including stems, leaves, and roots. Our carbon measurements are based on growth models and species-specific allometric equations approved by the international Gold Standard Foundation. Carbon Neutral also contributes to CSIRO's project "CFI Methodology and Tool Development – Estimation of change in biomass carbon in complex woody systems."

For ACCUs, FullCAM is a model for tracking the greenhouse gas emissions and changes in stocks of carbon and nitrogen associated with land use and management. FullCAM is a fully integrated Carbon Accounting Model (CAM) for estimating and predicting all biomass, litter and soil carbon pools in forest and agricultural systems. FullCAM is used as a measuring tool for Carbon Neutral's Australian Carbon Credit Units (ACCUs) and our Biodiverse Reforestation Carbon Offsets, (BRCOs).

## 37 Are the trees planted by Carbon Neutral at risk of being felled?

The trees we plant enjoy legal protection through an on-title agreement that spans 100 years. This safeguard shields our forests from land clearing, logging, and construction activities, even if the land changes ownership. This assurance ensures that the forests we establish fulfill Carbon Neutral's carbon commitment and provide the ecological benefits associated with mature native woodlands.

During the initial establishment phase, we monitor each planting site to assess the trees' health, growth rates, and the emergence of forest complexity, including the presence of forest birdlife. In addition, where feasible, we employ satellite imagery and drones to enhance our data collection.

## 38 Why does Carbon Neutral extend protection to trees for a century?

The 100-year legal protection period via a covenant grants our forests a robust foundation, and we hold sincere hope that by the close of this century, the mindsets and policies enabling rapid deforestation will have evolved significantly.

Applying a legal encumbrance to our forests entails considerable resources and effort. Most of the sequestration occurs in the first 25-30 years, however we aspire to see our forests thrive for many centuries to come, therefore we take comfort in the knowledge that, in the interim, they will play a pivotal role in combating climate change and become well-established assets for generations to come.

### 39 What occurs in the event of a forest being affected by fire or other weather-related incidents?

Native plant species have a proven natural tolerance to fire and a rapid recovery to resprout from stems and branches, as well as being stimulated to regeneration seeding. Well-established native Australian forests exhibit resilience and can endure periods of drought, fire, and pest-related challenges.

In addition to the legal safeguarding of Carbon Neutral's forests for a span of up to 100 years, should natural disasters such as fires, floods, or droughts necessitate intervention, we are committed to replacing affected areas or initiating reforestation efforts in alternative locations.

Thankfully, over the course of two decades and the planting of more than 30 million trees, plants, and shrubs, our properties have remained largely unscathed by significant weather events like bushfires.

### 40 Which types of trees, plants, and shrubs does Carbon Neutral cultivate?

Carbon Neutral consistently cultivates a diverse assortment of endemic native species, carefully selected to establish a robust foundation for the development of intricate forests. Our choices are driven by the unique canopy and understory species endemic to each specific bioregion, in accordance with best practice guidelines and informed by the surrounding local environment. Incorporating species naturally acclimated to the area in our planting schemes ensures the resilience of these forests, designed to flourish over the next century.

In the creation of each forest, we routinely introduce a diverse array of around 30-40 distinct species, all native to the site in question. Additionally, Carbon Neutral maintains an ongoing dialogue with various botanists and local experts in flora and fauna to ensure that the selected trees and shrubs align optimally with the region's biodiversity and carbon sequestration objectives.





**T** 1300 851 211

**E** [contactus@carbonneutral.com.au](mailto:contactus@carbonneutral.com.au)

**W** [carbonneutral.com.au](http://carbonneutral.com.au)