

What are Negative Emissions and why do we need them?

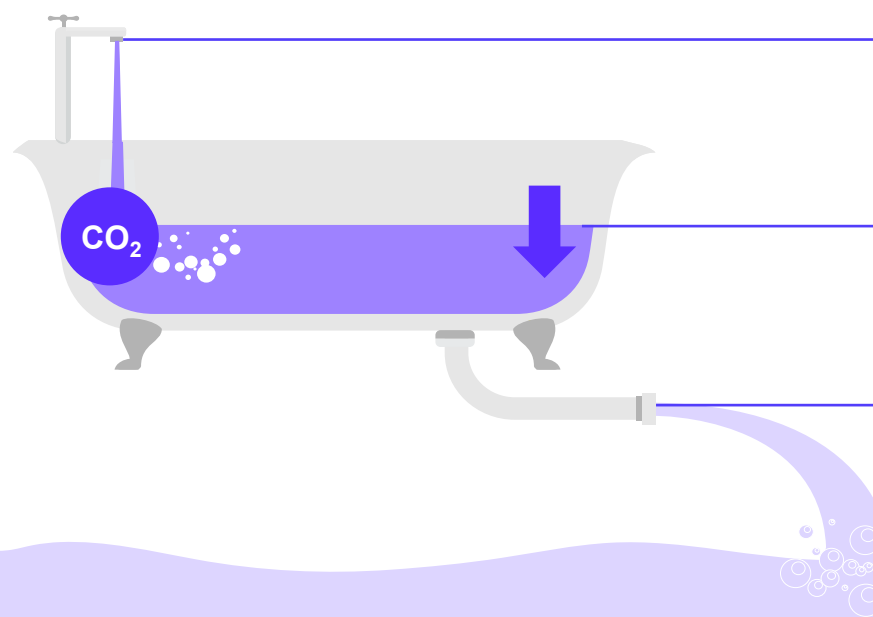
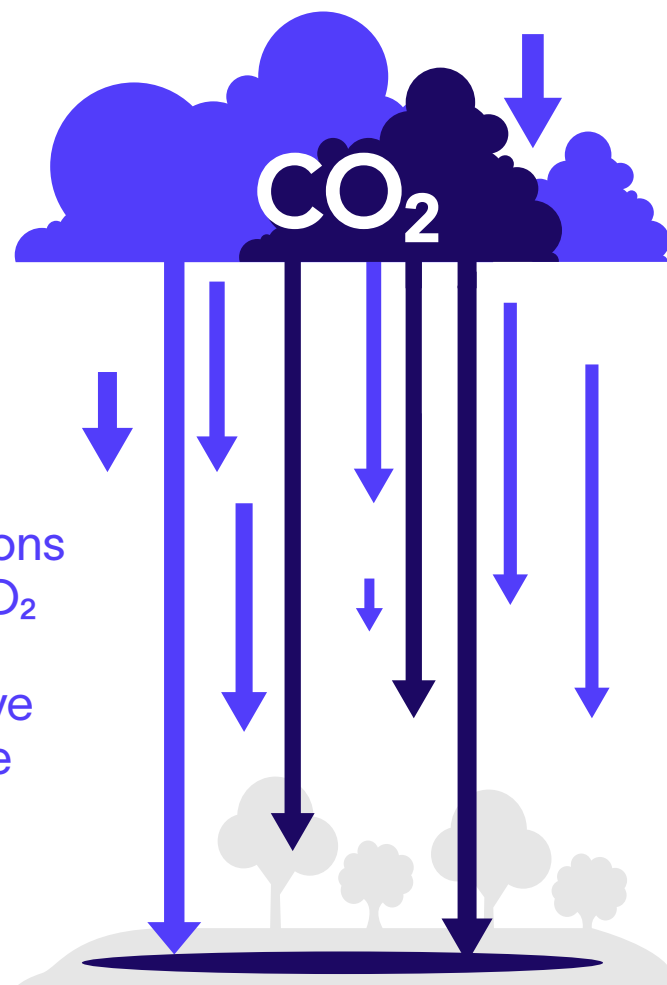
Call for immediate action.

November 2021



What are negative emissions?

Negative emissions are a range of technologies and nature-based solutions that capture and permanently store CO₂ and other greenhouse gases from the atmosphere. They offer a way to remove emissions that are currently impossible to entirely reduce in industries like aviation, agriculture and construction, and eventually begin to reverse the effects of climate change.



While emissions can and should be reduced, it's very hard to reduce them fully – a small amount of CO₂ emissions are hard to get rid of completely but can be neutralised by negative emissions

Negative emissions can help lower atmospheric CO₂, keeping the water level at a safer lower level, and prevent permanent overfills

Negative emissions are not a substitute for reductions but act side-by-side the effective flow of CO₂ being added in to the atmosphere in the approach to net zero

There are a number of proven, scalable ways to achieve this:



Bioenergy carbon capture and storage (BECCS) uses bioenergy combined with carbon capture technology to remove emissions and permanently store them deep underground.



Direct air capture and storage (DACs) captures 'ambient' CO₂ directly from the atmosphere and permanently stores it deep underground.



Natural climate solutions (NCS) like forestation which increases the amount of CO₂ absorbed from the atmosphere by trees; enhanced weathering, which increases the amount of CO₂ rocks absorb when they weather and erode; and biochar, which is a type of charcoal that locks in CO₂, water, methane and nitrogen when added to agricultural land.

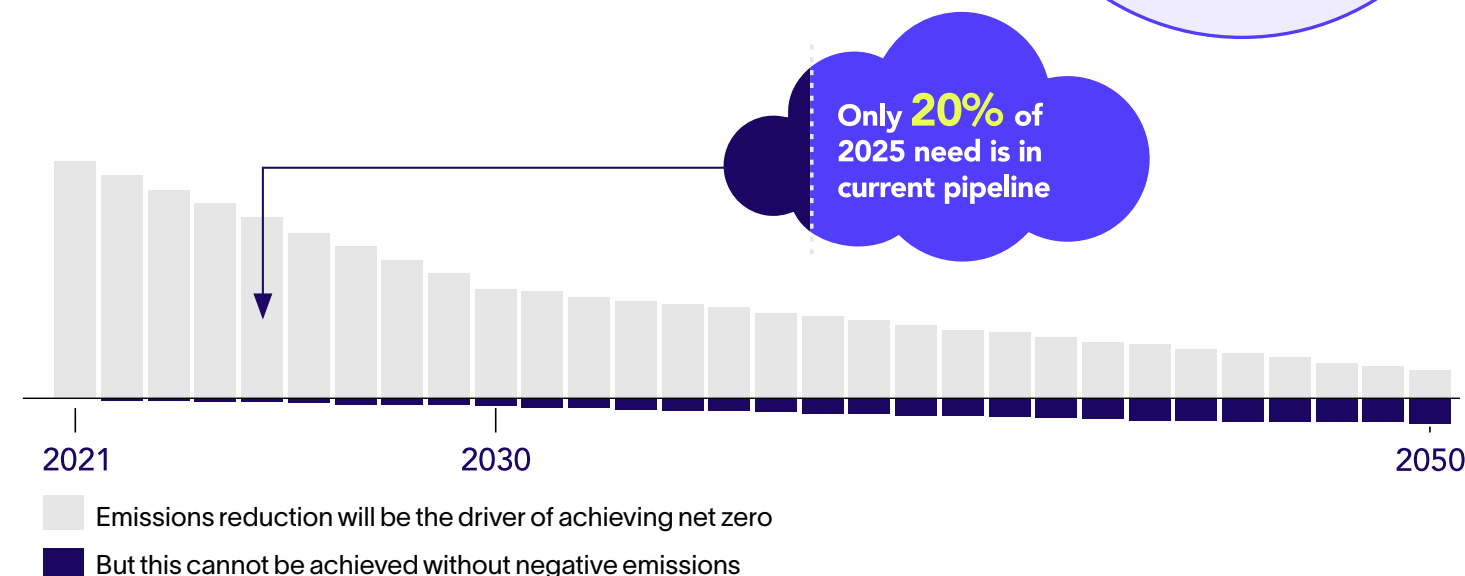
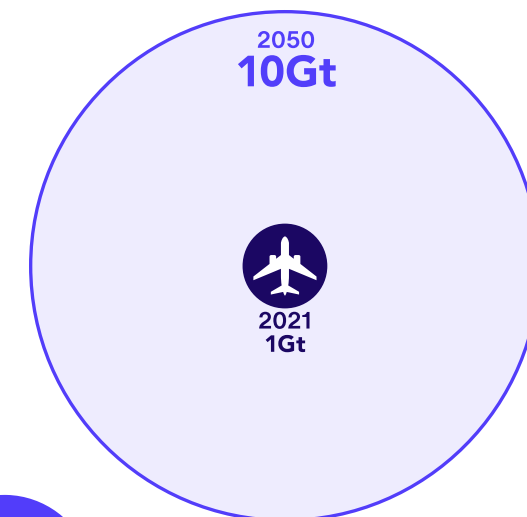
Why do we need negative emissions?

Keeping warming below 1.5°C is critical to avoid catastrophic runaway global warming.

This cannot be achieved without negative emissions due to residual emissions and the need for "drawdowns" i.e., the removal of the stock of CO₂ from the atmosphere.

The world needs negative emissions fast – and at an industrial scale – as fast as 1Gt by 2025 and as much 10Gt by 2050, i.e., 10x current aviation emissions.

Today the world is way off course in meeting the need – the current pipeline of projects will deliver just 20% of the 2025 climate need.



How can the world make change happen?

Scale-up can be achieved by prioritising five key topics for action in the negative emissions market:



Define what constitutes 'high-quality negative emissions'.



Shape robust, liquid and transparent markets for trading negative emissions credits, and provide supply-side financing for individual projects.



Ensure sufficient national commitments to negative emissions – an additional but parallel effort to reductions – are delivered by effective government orchestration and intervention to incentivise supply and oblige demand.



Agree on a method for transparently tracking and celebrating corporate claims, supported by clear accounting principles and a narrative that highlights the distinct value proposition of negative emissions in addition to emissions reduction.



Enable multilateral collaboration and trade that solves the negative emissions challenge globally.

Who are the Coalition for Negative Emissions?

ABP | ASSOCIATED
BRITISH PORTS

Agricarbon

AIRBUS

BANK OF AMERICA

BIOMASSUK
RENEWABLE ENERGY ASSOCIATION

Carbon
Engineering

CBI

CLIMATE
REPAIR

climeworks

Confor
Promoting forestry and wood

drax

Energy
UK

enviva

Heathrow

IAG
INTERNATIONAL
AIRLINES
GROUP

MGT
Teesside

NATURAL
CAPITAL
PARTNERS

NFU

1POINTFIVE

Petrofac

REA

SNC-LAVALIN
ATKINS
Member of the SNC Lavalin Group

STOREGGA

U.S. AIR FORCE
PENTAGON
SUSTAINABILITY

VELOCYS

Viridor

Worley
energy | chemicals | resources

The Coalition for Negative Emissions aims to build momentum, shape policy, and develop the market for negative emissions globally.

We are made up of a diverse range of companies across industries, from landowners and environmental stewards, large users and generators of energy, to technology start-ups and large manufacturers. We work across differing sectors of global economies, but we share a common vision: to develop and deploy negative emissions at a scale that will create genuine impact across the world.

Given our breadth of expertise, we have unique insight into the scale of the challenges faced in reaching climate targets. We also have expertise in how to address those challenges in a way that will allow economies and sustainable industries to thrive.

Our goal is not just to decarbonise, but to decarbonise while ensuring continued economic progress. To do this, negative emissions will be essential.

We welcome membership enquiries from organisations of all sizes that wish to support our ambition and grow negative emissions.

If you are an organisation that can help us advance towards a net zero future through negative emissions then [join our journey](#) today.