



**A  
COMMITMENT  
TO ZERO  
CARBON  
EMISSIONS BY  
2030**

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LABOUR  
FOR A  
  
GREEN  
NEW DEAL



Labour for a Green New Deal has a bold and simple policy with respect to decarbonising our economy and society: zero carbon by 2030. This proposal is radically more ambitious than the UK's current legally binding target, both in terms of timeframe and with respect to an ambition of achieving total decarbonisation, rather than the 'net-zero' target to which the UK currently aspires. But why 2030? Why zero carbon? And what does 'zero carbon' really mean? We consider these questions in detail below.

## WHY 2030?

To limit global warming and its disastrous impacts, it is essential to **rapidly** decarbonise. A deadline is only part of the picture - the important aspect is for rapid decarbonisation within that timespan. This briefing lays out the unequivocal need to limit global warming above that which has already taken place and provides a clear argument for why economy-wide decarbonisation by 2030 is both necessary and achievable.

## CLIMATE EMERGENCY: THE EXISTENTIAL NEED TO LIMIT GLOBAL WARMING

In October 2018, the IPCC - the UN authority on climate change - [released a special report](#) which stated: "limiting global warming to 1.5°C, compared with 2°C, could reduce the number of people both exposed to climate-related risks and susceptible to poverty by up to **several hundred million** by 2050".

Climate change is **already** causing death and destruction on a global scale, from wildfires in California and the Arctic to fatal heatwaves in India. This is an emergency. It is important to recognise that we are already living with climate change. We are past the point of 'preventing' climate change from happening; rather, our responsibility is to slow its course and prevent its most damaging impacts by acting as swiftly and decisively as possible.

The Paris Agreement on Climate Change set a target for limiting warming to “well below 2°C above pre-industrial levels” by the end of this century, with a secondary aspiration of limiting the rise in temperature to within 1.5°C. It is critical to note, however, that the [2°C target is not a scientific absolute](#) - it is a target arrived at through a process **based on political consensus** in the IPCC process, with various perspectives including scientists, economists, policymakers and others represented. Indeed, the 2°C target itself was originally coined by economist William Nordhaus in a [1975 thought experiment](#) which proposed that any target should reflect not just science but also societal values and available technologies. While there is nothing inherently wrong with reflecting values and capabilities in the approach to an issue as societally impactful as climate change, it is imperative to recognise that any temperature limit we set should therefore be regarded as subject to change based on **shifts in societal value, advancements in our understanding of the science, and changes in technological possibility**.

The IPCC’s report [Global Warming of 1.5°C](#) made it clear that the 1.5°C should not be understood as a laudable ambition but as the **absolute upper limit** of our targets. There is nothing innately “safe” about warming the planet up to 1.5°C; rather, **every additional 0.1°C means many more people will suffer**. Given that we have already surpassed a global average temperature rise of 1.1°C, it is imperative that we act as rapidly and decisively as possible to prevent further loss and destruction.

A recent analysis of the IPCC report from [CarbonBrief](#) is unequivocal about the consequences of 2°C of warming, demonstrating just how **catastrophic an additional one half of a degree** would be for global ecosystems and for human life.

Impact	1.5C	2C
Sea level rise (2100)	48cm	56cm
Increase in global marine heatwaves	x16	x23
Annual maximum daily temperature	↑ 1.7C	↑ 2.6C
Population facing at least one severe heatwave every 20 years	14%	37%
Global population exposed to severe drought	↑132.5m	↑194.5m
Global population flooded in coastal areas By 2055	↑28m/yr	↑30m/yr
Suitability of drylands for malaria transmission	↑ 19%	↑ 27%

Global population flooded in coastal areas (by 2095)	↑ 60m/yr	↑ 72m/yr
% of insects losing half or more of their habitat	6%	18%
% of plants losing half or more of their habitat	8%	16%

## WHERE WE ARE NOW

The UK currently has a binding legal target of achieving net-zero emissions by 2050. The government's [Committee on Climate Change \(CCC\) 2019 report](#) stated that if the UK were to achieve net zero emissions by 2050, with other countries following suit, it would give us a 50% chance of limiting global temperature rise to 1.5°C by 2100. **There are some key issues with this approach.**

First, **a 50% chance is a considerable gamble.** In the context of loss of human life and environmental collapse, using a 50% chance of success as our starting point is simply unacceptable. Second, the IPCC states that the global deadline for net zero emissions must be 2050 to have a sufficient chance of limiting warming to 1.5°C. For the rest of the world to achieve this target, however, will require those economies with greater capacity to act to meet it far sooner, leaving space for developing countries to catch up.

The UK has a particular responsibility to commit to an earlier deadline owing to its wealth and capacity, as well as our **substantial historical accountability for carbon emissions.**

The UK is the fifth wealthiest economy in the world, and has both the financial and technological capacity to transform its economy to eliminate carbon emissions far sooner than countries in the Global South. Moreover, the UK is one of the largest aggregate historical emitters per capita ([see CCC report p.107](#)) - emissions which propelled the country to its status as a global economic power, leaving developing nations with little 'carbon space' in which to obtain a comparable quality of life. The UK therefore has a proportionate responsibility to act to create the space for other countries throughout the world to develop - particularly those countries which are in line to be hardest hit by the climate crisis despite having done the least to cause it.

Given the potentially devastating consequences of 2°C of global average warming relative to 1.5°C, the existing 2050 target poses far

too great a risk. The UK must therefore set a substantially more ambitious target of 2030 in order to demonstrate how rapid decarbonisation can be conducted effectively and justly, providing an example for other countries to meet their own targets.

## TIMELINES AND CARBON BUDGETS

One of the best ways to understand how the UK should arrive at its target timeline is the idea of a 'carbon budget', which effectively describes the remaining quantity of CO<sub>2</sub> which a country can emit in order to stay within a specific target.

In a [recent study](#) assessing the implications of the IPCC report for the UK, researchers found that under a global carbon budget that would provide a 66% chance of limiting warming to 1.5°C and which proportionately addresses the issue of global wealth inequity, the UK would be allocated a budget of 2.5 billion tonnes (2.5 Gt) of CO<sub>2</sub> out of the total 420 Gt in the IPCC's most recent global budget. The study lays out a number of emissions pathways that would enable us to stay within this budget, and recommends a target of net zero emissions by 2030 or sooner, with a maximum 'net' of 5% emissions addressed by Negative Emissions Technologies.

The study underscores a crucial point: that we cannot simply apply a global net-zero target of 2050 to each country equally, nor treat it as an absolute. Rather, individual countries' targets should derive from carbon budgets and not the other way around. As the study argues, if we assume a 2050 target with a consistent linear decrease in our emissions from now until 2050, we will have **fully exhausted the 2.5 Gt carbon budget by 2030**, with an additional carbon "overdraft" of 3.5Gt by 2050 – a total of more than double our proportional budget according to the study.

Earlier research echoes the importance of adjusting timelines to comply with changing carbon budgets, for instance a [2011 study](#) in which scientists calculated that under the Kyoto Accord (the UN climate treaty that preceded the Paris Agreement), 'Annex 1' nations including the UK would need to reduce their emissions by between 8 – 10% per year. However, since the report was first published, global emissions have continued to rise, meaning the remaining global budget is now smaller than in the original report; to meet the same target, Annex 1

nations would thus now be required to reduce emissions by 12% per year – a rate roughly in line with net zero by 2030.

## **CARBON INEQUALITY AND HISTORICAL ACCOUNTABILITY**

A 2030 target is based on more than just budgeting. Rather, the target is a recognition that climate change is fundamentally a class issue, with major social and economic inequalities – both within and between countries – significantly shaping global emissions contributions and the course of climate change.

[According to Oxfam](#), the richest 10% of people globally are responsible for roughly 50% of global lifestyle consumption emissions, and the poorest 50% responsible for just 10%.

In the UK, 65% of the population are among the richest 10% globally, with a staggering 93% of the UK's population in the richest global 20%. Indeed, if every country in the world were to replicate the UK's per capita consumption emissions and broader resource use, the world's ecosystems would quite simply collapse. However, there are also massive disparities in income and economic welfare within the UK that must be addressed in order to ensure climate justice both domestically and abroad.

The UK continues to consume a hugely disproportionate per capita share of the world's carbon budget each year. Moreover, the UK's cumulative contribution to global carbon emissions and environmental damage is vastly disproportionate to our size and population, being one of the [largest historical per person emitters](#) according to the CCC. This contribution reflects a broader trend among developed nations, which together have contributed [nearly 70 percent of all greenhouse gas emissions](#) since 1850 despite housing just under 20% of the global population.

Developed nations also bear considerable responsibility for reducing the Global South's available resources for investing in combating reducing climate change. Richer nations' development is estimated to have [externalised \\$5 trillion of costs](#) onto poorer nations in ecological damage. Further, although far from the only major developed nation responsible for the historical and ongoing exploitation of the Global South, the UK has and continues to be a leading contributor to systems of extractivism and exploitation that enrich our economy while fueling

global emissions and leaving those who have contributed the least to the climate crisis more vulnerable. The City of London and UK Export Finance in particular [continue to drive this crisis](#), locking developing nations into non-resilient, carbon intensive futures by funnelling billions of pounds into fossil fuel infrastructure, while widening inequality by concentrating the gains from these investments among the wealthy.

In light of the above, there are two broad approaches to reducing global emissions:

1. Our current trajectory, where rich countries set vastly inadequate emissions reduction targets, taking far more than their fair share. This both externalises the effects of climate change on poor countries and radically constrains the degree of extra emissions growth which is possible for the poorest 50% of the world, reducing countries' ability to combat poverty or achieve other goals such as universal access to energy.
2. A new vision, rooted in both domestic and international justice, wherein rich countries radically reduce their emissions down to a fair share, allowing less wealthy countries the space to temporarily increase their emissions in service of these goals, before eventually reaching a global convergence at a more equal, lower level of emissions.

Rather than blame the majority of the world's population for wanting to obtain the quality of life enjoyed by the world's richest countries - including the United Kingdom - wealthy countries have an obligation to create the space for development in the world's carbon budget, while demonstrating how to achieve a just, green society and economy. This obligation is not just a moral imperative, it is also a practical necessity. Because net zero by 2050 is a global requirement for meeting 1.5°C, commitments to a 2050 net zero target by wealthy developed nations severely restricts the space for countries in the Global South to continue their development, forcing a choice between improved quality of life and mitigation.

## **WEALTH, TECHNOLOGICAL CAPACITY, AND AMBITION**

The UK is the fifth richest country in the world, with a GDP of \$2.62 trillion in 2018 according to the IMF. We are therefore amongst the countries best positioned to invest in solving the climate crisis. In line

with the Green Industrial Revolution proposed by the current Labour party, the Green New Deal should be understood as an opportunity to revitalise countless communities in the UK. The UK was once a leading centre of global industry, undertaking a diversity of productive activities that offered significant economic benefits in the communities in which they were located. The forced decline of UK industry that began under Thatcher has had devastating consequences for these communities. Moreover, the British economy is currently gripped by a [crisis of productivity](#), with production stagnating despite a continued rise in GDP, and [financialisation of the economy](#) concentrating wealth in the City of London while eroding traditional industries and manufacturing.

The establishment of a 2030 target would provide an unambiguous signal to private finance to invest in the industrial revolution needed to drive innovation and production for rapid decarbonisation, while also providing a clear strategy for massive public investment. As [economist Mariana Mazzucatto argues](#), markets are not ‘free’, and **government should not restrict itself to solely ‘fixing market failures’**. Rather, there are countless examples which prove that government has tremendous power to actively shape investment, production and innovation. A strong industrial strategy with a clear, ambitious target will thus be crucial to ensuring the finance, technological capacity, and labour power that exists in the UK is directed toward rapid decarbonisation and climate justice.

The renewable energy industry offers a compelling example of the scope and speed of innovation and industry progress that can derive from ambitious targets, effective incentive programs and strategic government policy - as well as the consequences of counterproductive policies. Globally, renewables prices have [fallen by approximately 80%](#) since 2009, [led largely](#) by **public rather than private investment**. Even oil majors like BP are rushing to invest in renewable energy due to [expectations about favourable government policy](#). In the UK, however, the Tories have enacted a suite of legislative changes gutting government support for the renewable energy industry, causing investment to [more than halve](#) between 2015 and 2017 and driving the loss of nearly one third of the industry’s jobs.

## IS 2030 POSSIBLE?

Given the scale of the threat posed by climate change, the question at hand is not whether we can afford to act with great ambition – it is whether we can afford not to. 2030 is an undeniably ambitious target;



however, this level of ambition is necessary if we are to avoid the most catastrophic impacts of climate change.

There have been a number of examples in living memory in which we have seen the unprecedented mobilisation and innovation that can occur when nations rally behind a cause; two often-drawn comparisons are the Second World War effort and the race to land a man on the moon. Rather than just compelling metaphors, these comparisons offer valuable reminders of our capacity to achieve the 'impossible'. In the Second World War, for instance, the 'Dig For Victory' campaign saw the amount of arable land in the UK double in just a handful of years. Similarly, the American Apollo Programme saw a man walk on the moon within just a decade of announcing the ambition. The lesson of such spectacular feats is clear – what is considered **'impossible' is an inherently moving target**. Labour must show a similar sense of ambition and vision if we are to avoid the most devastating impacts of climate change.

Skepticism about the 2030 target is rooted in the lack of a clear roadmap for how it will be achieved; however, there is comparable – albeit qualitatively different – uncertainty in even the [2050 strategy recently set forth by the CCC](#). Indeed, the CCC plan is based not on what is achievable, but on the scenario that would be least cost. Further, the CCC roadmap, like many of the scenarios set out by the IPCC, currently rely on widespread implementation of negative emissions technologies (discussed below), the scalability and practicability of which are extremely uncertain, in addition to ethically dubious.

## WHY 'ZERO' CARBON?

Targets for eliminating carbon emissions typically fall under one of two frames – 'zero' or 'net-zero' emissions. Though such a distinction may seem minimal, the differences between the two can be substantial, with 'net' often used as a catch-all for controversial emissions offsetting and unproven carbon removal technologies, allowing nations to [continue with 'business as usual'](#). Labour for a Green New Deal advocates a transition to a zero-carbon economy through the complete elimination of the use of fossil fuels.

However, it should be explicitly recognised that completely eliminating all emissions is a practical impossibility. Rather, in order to prevent catastrophic climate change, the Green New Deal must eliminate GHG emissions, including from industry, energy, transport, buildings and

land use in order to avoid a **dangerous assumption** of reliance on **unproven carbon removal technologies or problematic offsetting schemes**, as is currently the case under the [net-zero 2050 plan](#) set forth by the CCC. The use of a 'net zero' target that integrates both goals for decarbonisation and allowances for carbon removal is an unacceptably high risk strategy that leads to "[mitigation deterrence](#)" - falsely discounting the carbon reductions that are needed while weakening ambition and delaying progress toward a fully decarbonised economy. The Green New Deal must therefore establish a clear delineating between targets for emissions reductions and assumptions regarding negative emissions, and must limit the 'net' to include only those necessary emissions which can be offset through programs such as domestic reforestation and rewilding. To ensure global climate justice, the Green New Deal must aim for zero carbon wherever possible.

## THE FUTILITY OF OFFSETTING

The IPCC scenarios for limiting global warming to 1.5C generally entail widespread global decarbonisation in certain sectors alongside the continued - albeit reduced - use of fossil fuels and other GHG-emitting activities. To reconcile these two seemingly contradictory elements, the scenarios generally assume that Negative Emissions Technologies (NETs) or natural carbon sequestration can be used to offset these continuing emissions, and that Carbon Capture and Storage (CCS) technologies can be used at the point of burning fossil fuels (for instance during cement and steel production) to prevent emissions reaching the atmosphere. Some envisage that geo-engineering may also be used to otherwise cancel out the greenhouse effect associated with GHGs. The IPCC pathways for limiting global warming to 1.5C include a wide array of scenarios, ranging from minimal offsetting e.g. through reforestation to widespread implementation of NETs.

In their 2019 Net-Zero by 2050 report, the CCC note that in 2050 the UK may still emit up to 89 million tonnes of GHG per year (p.270), equivalent to 18% of our current domestic emissions. The report assumes these emissions would be offset predominantly through the use of BECCS (see definition below). The CCC 2050 scenario also envisions just a 30% drop (p.252) in the use of natural gas and assumes over 90% of the emissions related to its use would be captured using unproven CCS technology.

Examples of NETs include:

- Direct Air Capture (DAC) - sucking carbon dioxide out of the air, for burying or reuse.
- Bioenergy with Carbon Capture and Storage (BECCS) - farming bioenergy crops which extract carbon from the atmosphere as they grow, then burning them for energy using CCS to sequester the emissions from combustion.
- Using wood in construction - using plant-based materials in buildings and infrastructure to store carbon in the short to medium term.

Natural carbon sequestration techniques include:

- Reforestation - reversion of currently non-forest land to forest in ecologically appropriate areas.
- Natural forest management - e.g. delaying harvesting in native forests and reduced-impact logging.
- Biochar - adding charcoal to agricultural soils to sequester carbon.

Geo-engineering is a controversial concept that involves artificially altering the atmosphere, land surface, etc. to counteract global warming. Proposals often involve reflecting sunlight from the planet to prevent heating effects, for instance by:

- Spraying aerosols in the stratosphere
- Using ships to spray saltwater clouds above the sea
- Placing large mirrors in the atmosphere

Geo-engineering solutions are not only unproven at scale; critically, they are also accompanied by major inherent risks of unforeseen, unsustainable impacts which are challenging to predict. They also raise major ethical questions regarding global control of the manipulation of the climate, as well as the potential for certain parties to weaponize such control. The following sections delve deeper into the risks of relying on scenarios predicated on the widespread implementation of unproven technologies in order to delay or avoid the need to fully decarbonise and transform our economy.

## **CARBON CAPTURE - UNPROVEN, UNSUSTAINABLE, UNNECESSARY**

There are high levels of uncertainty over the rates of carbon capture that can be achieved (CCC p51), with life-cycle emissions perhaps only

reduced by 60% (CCC p59) risking high residual emissions from the continued use of fossil fuels. Additionally, the technical and economic viability of large-scale CCS is not proven and lagging behind the large scale of renewables. This significantly increases the risk of delays to decarbonisation, with the potential for serious consequences.

Even if it were to successfully limit carbon emissions on a large scale, CCS nonetheless requires the extraction and burning of fossil fuels with other polluting impacts including air pollution and the release of toxic by-products into the aquatic and terrestrial environment.

A reliance on future provision of CCS currently acts as a get out of jail free card for continued investment in fossil fuel infrastructure. This creates barriers to both the rapid transition to renewables and investment in the technologies needed to decarbonise industry, transport and buildings. Research has shown that the use of [BECCS is not required](#) to avoid 1.5C of warming; moreover, that the scale of land needed for widespread use of BECCS technology is infeasibly vast, and would conflict with human rights, food security, and environmental sustainability by fuelling [land grabs in Africa, Asia and South America](#) while competing with agricultural needs for land use.

## THE NEGATIVE EMISSIONS TECHNOLOGY GAMBLE

NETs such as Direct Air Capture are unproven, likely high cost and would require massive expansion of the electricity network beyond that already required for green transport and heating. Other NETs such as BECCS are similarly unproven at scale and require immense areas of land to produce feedstocks, with significant ecological impacts, serious risk to natural habitats and biodiversity, and competition with arable land for food production that, [putting the already delicate food security of the global South at greater risk](#). The scientific community has consistently affirmed the “limited realistic potential” of NETs to halt increases in GHG in the atmosphere at the scale required, with research confirming that NETs such as BECCS and Direct Air Capture lack both the scale and rate of deployment required to meet carbon goals. Still other research has shown that in addition to their potential infeasibility, widespread use of NETs may create unacceptable impacts. The Green New Deal must therefore take a more realistic approach in order to avoid these risks by tackling carbon reductions head on through a clear focus on reducing emissions at source, without CCS.

# INTERNATIONAL OFFSETTING

Offsetting systems involve the use of emissions reductions in one area to effectively 'counteract' emissions contributions from elsewhere. Currently, this system largely enables wealthy countries and individuals to absolve themselves of the need to decarbonise by paying poorer countries for emissions reductions. For instance, many airlines now offer the ability for passengers to pay to 'offset' the carbon cost of their flight. Such a system serves to worsen global climate inequality, particularly as a majority of aviation is attributable to the small fraction of the global population that can afford to fly.

More broadly, carbon offsetting is an inherently zero-sum game that will fail to reduce global emissions in the long term. For instance, many schemes currently involve paying for tree planting in order to offset emissions, or paying for more efficient cookstoves for communities in the global South. Given the finite nature of land and of the Earth's resources, such schemes are unsuitable by design for achieving anywhere near the scale required to reach global net zero emissions. Offsetting schemes were a central component of the Kyoto Protocol through the Clean Development Mechanism (CDM). The [CCC report](#) explicitly addresses the failure of this scheme, stating:

"There are several issues which impacted the effectiveness of the CDM... a failure to incentivise truly additional emissions reductions, lack of transparency in governance, as well as a more general failure on its contribution to sustainable development objectives."

Indeed, carbon offset schemes are plagued with issues of accounting and accountability. Moreover, they make it harder to reduce absolute emissions in the future. As noted by NGO Friends of the Earth:

"The longer we delay action on actually cutting emissions, the worse the problem gets and the harder it will be to cut them later on. For example, in the UK, if we offset CO<sub>2</sub> from flights but continue to promote growth in aviation infrastructure, it will be harder to cut emissions later on when the runways have been built and the demand stimulated." Instead, what is needed is a concrete plan to reduce emissions at source while ensuring that solutions do not serve to deepen global economic inequalities.

# RESERVING THE USE OF NATURAL SEQUESTRATION

For some sectors – particularly those carbon intensive industries that will be essential to a transition to renewable energy infrastructure such as steel and cement – reaching zero carbon will be uniquely challenging, and some residual emissions may have to be accommodated. These emissions should be minimised as far as possible, such that – where necessary they can be offset using proven, long-term natural sequestration through reforestation that simultaneously enhances biodiversity and does not penalise the poor by limiting the amount of land available for vital needs such as housing or sustainable, affordable food production. Reforestation or ‘rewilding’ will maximise the ability of natural habitats across the UK to reduce atmospheric carbon where eliminating emissions at source is impossible in the near term, rather than enabling continued use and development of offset fossil-fuel infrastructure and driving global inequality by failing to address the need for decarbonisation in developing economies.

## A JUST ALTERNATIVE

A ‘zero carbon’ target may be criticised as an unreasonable ambition in light of the challenges inherent to achieving it, particularly in the time frame of 2030. However, Labour for a Green New Deal argues that zero carbon is in fact a lower risk and more reasonable scenario than any which relies on the significant assumptions inherent to NETs, CCS and geo-engineering, not least because it doesn’t rest on a 50% gamble on the security of countless human lives. Rather than assume we can continue with business as usual and hope that technological advancements will arise to mitigate the impacts of our complacency, we urgently need to bring our carbon emissions to as near zero as possible. Ensuring global climate justice requires that we recognise the importance of a **clear separation between targets for decarbonisation and assumptions concerning carbon removal.**

Rather than an impossibility, the transition to zero carbon should be recognised as an unprecedented opportunity to tackle the climate crisis and inequality by radically transforming our economy and society.