



## Getting real: what would serious climate action look like?

**Kevin Anderson, Manchester University, summarises the action necessary if governments and societies were really committed to keeping global temperature change close to 1.5°C – and how there would be wider benefits too.**

In signing the Paris Climate Agreement, governments have committed to hold the global temperature rise to no more than 1.5 to 2°C. However, as we understand more about the scale of impacts of rising temperatures, the emphasis has increasingly shifted towards 1.5°C as our primary commitment; and even 1.5°C is far from a safe threshold for many communities around the globe. People are already suffering and dying from the impacts associated with a rise of just 1.1°C, a situation we need to keep in the forefront of our thinking when deciding on what is and isn't feasible.

What we get from the science is a good approximation of the total amount of carbon dioxide we can dump in the atmosphere if we are to give ourselves a 50/50 chance of not exceeding 1.5°C. That's about 400 billion tonnes and, for good chance of staying below 2°C, this value doubles to around 800bn tonnes. That might sound like a lot, but 400bn tonnes is under 10 years of current emissions (from the start of 2022), and 800bn tonnes is less than 20 years, but of course with much worse climate impacts.

We are currently using up the carbon budget at a rate of almost 1% each month for 1.5°C. So, at the time of writing – in March 2023 – we've used up a little under 15% of the total 1.5°C

budget. This is not a complicated calculation, rather just carbon budget values from the reports of the Intergovernmental Panel on Climate Change (IPCC) and a bit of basic arithmetic. Throw in our repeated commitment to give poorer nations a little longer to reach zero emissions, then we're looking at the wealthy parts of the world needing to achieve zero emissions, that is zero fossil fuel use, by around 2030 to 2035, with the poorer nations having just 10–15 years of leeway – up to around 2040 to 2050. This tight and scientifically robust framework provides a clear message about the concept of offsetting. Under such a short timeline, every sector is up against the wall to deliver its fair share of cuts in emissions – there is no surplus untapped capacity. It's going to be incredibly difficult to get anywhere near the 1.5°C to 2°C commitment as it is, though I think it is still do-able – just. The suggestion that we high-emitters, whether countries, companies or even individuals, can 'offset' the cuts we urgently need to make by passing them on to others seriously risks leaving business-as-usual unchanged. In a 1.5 to 2°C world, offsetting is very much part of the problem.

So let's roll back and think about what we really need to do. Thus far, we've had 30 years of failures, tweaks to business-as-usual, carbon markets, and the dodgy prospect of future technologies sucking CO<sub>2</sub> out of the air decades from now. Such nonsense is



» not going to get us anywhere near the small and rapidly shrinking carbon budgets that we now have remaining. What we urgently require is a Marshall Plan-style roll-out of low and zero carbon technologies. These technologies cover retrofitting our houses, public transport, and massive electrification. It's much more this 'far-from-sexy' end of technology that's important; the everyday technologies that allow us to live sustainable and fulfilled lives, rather than big and powerful electric vehicles (EVs), electric planes, and lots of future carbon dioxide removal.

But such a rapid deployment of existing zero carbon technologies, in itself, can no longer be sufficient. We've left it so late that technology will never deliver in isolation. It is a prerequisite condition, but not enough. We also need profound changes in the socio-economic structure of modern society. That is to say a rapid shift in the labour and resources that disproportionately furnish the luxuries of the relative few – not just the billionaires, but also people like me. Such resources and labour are urgently needed to rapidly decarbonise our physical infrastructure, from housing to transport and industry to energy supply. So it's not the old adage of 'take from the rich to give to the poor', it's mobilising society's productive capacity, its labour and resources, to deliver a public good for all... a stable climate with minimum detrimental impacts. This is a huge challenge!

So what would it look like? Let me sketch out just a few examples. An early win would be an immediate moratorium on airport expansion and a plan to deliver a fair 80% cut in all air travel by 2030. Also, no more new internal combustion engine cars would be built from 2025, and there would be a huge shift away from private cars in cities and urban environments coupled with a shift towards public transport and active travel. Maybe rural communities would continue to use EVs, but with a rental rather than ownership model. Also necessary would be the retrofit of existing homes, not just a pilot scheme but actually rolling it out street by street at mass scale. Passive house standards would be required on all new properties and also a maximum size threshold. Why are we building homes that are 200 to 400m<sup>2</sup>? Cut this to a maximum of 100 to 150m<sup>2</sup>, still large homes, but with much less resource and material use – and of course less land! And when we sell existing very large houses, have them carefully and creatively divided into normal sized homes. All of which would free up labour and resources to achieve the necessary decarbonisation agenda. On top of all of this we need a massive expansion of electrification in the energy system. This is an unprecedented scale and rate of change – pushing the productive capacity of society to its limit and consequently demanding the reallocation of labour and resources to deliver a decarbonised, sustainable and prosperous future.

But how are we to get political buy-in for this revolutionary shift in norms? I don't think it is necessarily that hard to get the vast majority of the population behind such positive change; it requires honesty and candour. The majority of people will be better off in virtually all aspects of their lives. Not only the elimination of fuel poverty – at last – but improved and warmer homes, reduced bills and much better indoor and outdoor air quality – leading to healthier children more able to participate fully in school. Clean, efficient and reliable public transport – for all citizens – less noise, more usable urban space for parks, cafes, playing fields and the many other facilities that make a thriving community. And all of this requires skilled and trained employees – quality and secure jobs, not just temporary call centre work. In short, for the vast majority, this is a significant improvement in quality of life – and, as a side benefit, no more carbon emissions and much less overall pollution.



Photo by Arthur Lambillotte on Unsplash

How will society pay for such a progressive future, I can hear some people ask? That's where the rapid shift in labour and resources is really important. We know what to do and we know that most people will be much better off. But a relatively small, very high-consuming group of us will face major material sacrifice – and, of course, away from a few exceptions, we will not do this voluntarily. So the question is much less 'what do we need to do?' We know. It's not how to fund it, we know how to do that too – through, for example, a Green New Deal scheme that largely or more than pays for itself – and that we have the necessary money and wealth in society for this. The question is how do we change the debate so that it's not driven by the senior journalists, the owners of the mainstream media, the senior academics, the entrepreneurs and the policy makers – all of whom are in the high emission category – and have successfully side-lined the central role of equity in the debate. This has to change if we're not to face the calamitous prospects of rapidly rising temperatures and the impacts that will ensue.

But how do we get the debate opened up? How can the silent majority, who will do really well out of these changes, have their voices heard without being twisted by those running the show? If the media, 'the great and the good' experts and we high-emitters continue to have our way there will be no shift in business-as-usual until we're hit by the climate chaos of inaction. If, however, enough voices can break through the stifling status quo, perhaps a more honest and inclusive debate can be catalysed. As we have progressed beyond the climate deniers, we need to move beyond the 'mitigation deniers' who greenwash business-as-usual. To me at least, the rise of civil society engagement on climate issues along with real-world technologies demonstrating what is already possible, suggest we may be in the foothills of a social and technical tipping point. Of course, we can't know this until we are actually living through it. But we can increase its likelihood and hasten the demise of the high-carbon status quo by repeatedly and coherently countering the 'mitigation deniers' wherever they may reside.

**Kevin Anderson** is a Professor of Energy and Climate Change at the Universities of Manchester (UK) & Uppsala (Sweden). Kevin also runs the Climate Uncensored website – <https://climateuncensored.com/about/> – where readers can find more detailed discussion of the issues covered in this article.

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