

Why do green jobs plans need a different politics and economics?

Speech by [Jonathan Essex](#) at Green Jobs Alliance AGM

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Green jobs plans are an important part of the transition to a zero carbon economy. But they need wider political commitments to make this happen. This piece explores the need for a stronger position by the UK government on phasing out fossil fuels, for a transition for the heavy industry such as steel, for reducing overall demand for energy and materials, and for this to be set within an economics of redistribution.

No more oil, coal and gas

First, we need to stop extracting ever more coal, oil and gas. We can't afford to extract and burn current reserves, let alone new reserves. That Rosebank, the large new oilfield in the North Sea, should not be exploited, is a litmus test of political commitment to sufficient climate action¹. It has long been known that we must leave at least 80% of coal, oil and gas as unburnable to stay within 2°C of global warming². In 2021, the International Energy Agency said that no more oil, gas or coal reserves should be developed to stay within the limit of 1.5°C³. In 2023 researchers have estimated that 60% of existing oil, gas and coal fields and mines already open or under construction need to be shut down⁴.

The implication for the UK is clear. No more offshore or onshore fossil fuel extraction should start and existing North Sea oil and gas fields should be phased out.

But to constrain fossil fuel burning within global limits we need more global restraint of supply and demand than has been envisaged, let alone agreed, at global climate conferences.

Firstly, a non-fossil fuel proliferation treaty is needed to keep large amounts of existing reserves, including that already being exploited, in the ground in a fair manner⁵. This needs a global transition fund and clear agreed plans for its implementation.

The UK and other historic emitters⁶ should lead by example. For the UK this means not just no to Rosebank but no new coal mine in Cumbria⁷, no fracking or other onshore extraction.

1 For example, see www.independent.co.uk/news/uk/home-news/rosebank-oil-field-approved-b2419328.

2 <https://www.imperial.ac.uk/sustainable-gas-institute>

3 <https://www.iea.org/reports/net-zero-by-2050>

4 <https://priceofoil.org/2023/08/16/shut-down-60-percent-existing-fossil-fuel-extraction-1-5c/>

5 <https://www.tandfonline.com/doi/full/10.1080/14693062.2019.1636759>

6 <https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/>

7 <https://www.theguardian.com/commentisfree/2022/dec/07/opening-coalmine-cumbria-climate-crime-against-humanity>.

But that is only half of the story. Research by Fergus Green on climate policy highlights that to be effective, policies to limit fossil fuel extraction and constrain demand for oil, coal and gas need to work together⁸. They use the analogy of a pair of scissors. Unless pressure is put on both sides, to reduce supply and demand together, then policies to cut carbon will not work.

So, alongside limiting extraction, real efforts to curtail demand are needed. Such demand reduction must start with key sectors of the economy that have to date largely defied efforts to decarbonise. Three are explored here: transport (particularly aviation, shipping and road freight), heavy industry and the overall demand for high carbon ways of living. To explore this the fastest growing form of transport emissions – aviation – and perhaps the cornerstone of heavy industry – the steel industry – are considered, before exploring how society as a whole might make sufficient changes.

Green New Deals in place of Airport Expansion

So how might that look where I live around Gatwick, which provides much employment now, but automation will mean it will employ fewer, even if it grows. Here the choice is that articulated in our *Green New Deal for Gatwick* report, a plan worked up during Covid lock-down through Green House colleagues working together with Tahir Latif and Sam Mason of the PCS trade union⁹. This sought to quantify how the area around Gatwick could create new green jobs to transition towards zero carbon, instead of placing the hope of post-Covid employment on airport growth – which feels like a false hope as even new jobs from runway expansion are cancelled out by automation at the airport – little better than trying to run the down escalator. The Green Deal report set out the possibility of giving local people the choice of different jobs to go green: to retrofit every home in need of a makeover; to transform the care sector, to become teaching assistants; to deliver 90% reuse and recycling; to become installers of solar and wind; as well as help make the local environment more productive and biodiverse together through a shift to more organic, regenerative systems of agriculture. Clearly this needs government committed to properly fund education, social care, and put the amount of money needed to retrofit not just all our homes and transport but global supply chains too. But our report was also about making the case that just by shifting the relative subsidy to burn oil which it gifts to aviation, government could set out to create sufficient employment to transition more jobs than exist at Gatwick Airport today. (We found that that the UK the aviation industry receives £8 billion in tax breaks from the government each year.)

The New Economics Foundation recently highlighted the disservice that the aviation sector does to airport workers and the wider UK economy. The *Losing Altitude* report highlighted that aviation and the globalisation that goes with it, are rubbish for inequality

8 https://eprints.lse.ac.uk/87734/1/Green_Cutting%20with%20both%20arms_2018.pdf

9 <https://www.greennewdealuk.org/updates/a-green-new-deal-for-gatwick/>

in wages and increasing income disparities between London and different parts of the UK.¹⁰ Their research found that aviation is the worst of 96 sectors of the UK economy in its real terms median pay decline from 2008–22 – and second worst pre-pandemic from 2008–19. And, shockingly, NEF found that earners in the 20th percentile (i.e. the lower-paid workers) saw average gross pay declines of 26% between 2006 and 2022 while earners at the 80th percentile (i.e. higher-paid workers) saw an increase of 1%.

But aviation's disbenefits are not just impacting airport workers: they are felt across the whole economy. NEF analysed data from the Office for National Statistics that shows that from 2001 to 2019, average weekly household expenditure rose from £587 to £588. But that is the average. With greater inequality this has meant a growing minority flying a lot more. In fact since 2006 spending on air travel and overseas trips has increased by 20% and domestic tourism spending fallen by 20%. This has created a monumental £34 billion annual UK travel spending deficit. Addressing this would be a good way to start levelling up the UK, redistributing £2 billion of tourism gain with £36 billion of loss across the UK, including many historic seaside destinations, such as Blackpool which ranks as the most socially deprived local area in the UK.

In contrast, a green jobs transition would create jobs nearer where people live than where people work – with jobs proportionate to land area and population it would also be a great way to make the UK economy 'level-up' – not through mythical growth but through redistributing money and jobs from wealth and profit into green collar work, skilled, entrepreneurial, life and world changing.

Rethinking Trade and Industrial Production – a Spotlight on Steel

Now let's consider the impact of international trade before exploring what green steel that addresses the climate emergency might entail.

During lockdown, research by Green House Think Tank quantified the largely unreported climate impact of the UK and European part in global trade. We found that the transport carbon footprint of the UK's imports and exports amounts to over 36 million tonnes of carbon a year.¹¹

One of the most significant impacts was the transportation associated with iron and steel production – over 2.5 million tonnes of carbon emitted in shipping coal and iron ore from Australia and Brazil, as well as importing and exporting steel. Unbelievably, in 2019 the UK exported four fifths of its scrap steel (10.5 million tonnes), which is far more than the 5.7 million tonnes made in UK blast furnaces. We found that shifting our production from blast furnaces burning coal and ore to electric arc furnaces melting scrap would reduce UK steel industry emissions by 75%. We also found that the UK could shift to making higher quality steels – but that would require interventions to reduce copper

10 https://neweconomics.org/uploads/files/NEF_Losing-altitude.pdf

11 <https://www.greenhousethinktank.org/trade-and-investment-requirements-for-zero-carbon/>

concentrations in scrap, interventions outside of the steel industry itself, a wider green transition than that proposed currently in Port Talbot. So deconstruct cars so as to separate out copper wiring from motors before the car is scrapped. This would keep the value of the steel and in turn would free up copper, itself a valuable metal used for renewable energy provision and battery storage.

For example, the electric arc furnaces proposed at Port Talbot, could create high-grade steel which could be part of a repurposing and re-localisation of global supply chains. Most probably, however, not all in Port Talbot, one of the UK's two remaining steel works, but in regional industrial clusters linked to sub-regional and local enterprises. Colin Crooks called on the UK to create 1 million social enterprise jobs – creating 1000 jobs in 1000 locations across the UK.¹² This would be far better than the current government's capital-intensive 'levelling-up' programme.¹³

But this is not what is proposed in the replacement of the blast furnaces with electric arc furnaces in Port Talbot. Instead of wider green industrial and transformation for the sub-region, it is simply to replace one form of technology with another – no investment in a wider circular economy or reskilling of the workforce made redundant into new jobs.

Unsurprisingly neither the steelworkers nor the unions are impressed.

However, a real green transition of the steel industry would need to extend far wider than ensuring a just transition for the existing workforce. It would mean reducing the overall scale of steel production and use, in the UK and also worldwide. This would mean reversing the drivers that lock ever more steel into new buildings, vehicles and infrastructure, and demand yet more steel products, including machinery in buildings and the huge number of vehicles in circulation.

This is what the challenge to stop growing material and energy use and the resulting ecological and climate footprint of the UK would look like in practice. It is not just cheap energy from fossil fuels that drives up demand for products. Increased production of steel and other core materials enables expansion of the scale of the built environment and infrastructure systems that lock-in such demand. To change the scale at which materials and energy are used we need to constrain industrial production and the wider material extraction that underpins it.

Economists have studied how the rate of construction and key infrastructure assets are produced. Earlier research by Green House highlighted that creation of new fixed capital items (which for a large part is construction) accounts for around a quarter of GDP in developed countries, and construction alone around a tenth of GDP.¹⁴ This highlighted research by Lopes (2009) which concluded that once countries have developed (constructed) to a certain degree then continued economic growth and development can be sustained.

12 <https://www.theguardian.com/social-enterprise-network/2012/jul/25/social-enterprise-solve-unemployment-crisis>

13 <https://www.gov.uk/government/collections/new-levelling-up-and-community-investments>

14 Essex (2014). [How to Make Do and Mend the Economy](#).

Some have highlighted that when what they call gross capital asset formulation reaches 20% an economy becomes 'developed'. That means that the rate of construction is sufficient to self-sustain continued growth in the amounts of production, consumption and scale of an economy (as measured by GDP). That is what capitalism means when it refers to the notion of sustainable development. Replacing one technology with another, such as replacing blast furnaces with electric arcs, will not change the nature of this process. Such so-called 'green growth' will not stop us burning ever more fossil fuels, or sustains high levels of steel production to build more vehicles, buildings and even airports.

A Different Approach – A Green Transition

Instead we need a green transition – that is labour- not material- or technology-intensive, increasing how the economy flows locally rather than how big it is nationally or globally. The new jobs will not be in production in the UK but reproduction. It would depend upon new skills and jobs that reimagine, repurpose and reuse what already exists, and thus on activities that retain embodied carbon. Instead of using ever more energy to make more stuff that economy of scale and comparative advantage turn into fossil fuel powered global supply chains: a revolution of upskilling is needed to reconnect communities. Instead of *Do-it-yourself*, think: *Re-inspire Your Community*.

The shift to this new economy could be energised through local green jobs plans that ratchet down our level of resource supply and demand, making better use of what the economy already has, including repurposing resources like steel regionally and locally, reinsulating homes, renewables and less overall energy use. This would be a clear alternative to continuing to exploit more North Sea oil and gas, and also to and the massive predicted increase in the use of lithium and rare earth metals to power the transition to electric vehicles – without reducing the scale of consumption of these, or our propensity to travel and consume ever more.

Such green jobs plans need to be set in an economics of redistribution that turns politics into something we all participate in, something that provides the glue and grease that links the climate science and emergency declarations and policies into real plans, everywhere that can deliver sufficient collective transformation. That would be a great upskilling in contrast to the present absence of any government requirement on business to provide pathways to new skills and jobs beyond that company. That requires a government to go beyond doing litmus tests and tinkering in the market and instead to drive forward with a clear public-led plan.

So how might this start in the absence of such a plan? I am involved in a local community enterprise – I am part of Energy Action Redhill and Reigate.¹⁵ Our leaky home

15 <https://www.earr.co.uk/>

surveys use infrared cameras to show residents where heat leaks, and we distribute free and half price insulation to households in need. But not just that! We are NVQ-ing up to levels 3 and 4 a group of energy champions. Initiatives like this are already getting skills in place, in readiness for government to finally mainstream investment in retrofitting the UK's poorly insulated and leaky housing stock.

Consider how this might look if the economy behaved like the national electricity grid. If we opt for a scaling up of renewables alongside the rethinking of demand explored above, the national grid will not need to expand exponentially to cope with the electrification of heating, transport and all else. Instead more energy will be generated and consumed locally, and the grid will have a greater role in rebalancing and redistributing power, alongside new storage and demand management. Similarly, instead of continuing to increase the scale of energy generation and consumption, and the 'economy' distributing product from where it is centrally produced to consumers, it might serve to redistribute between far more self-reliant local economies, that sustain more of their own work, and have a greater sense of place as the local vernacular of architecture, the seasonal variations of diet, and sports and pastimes more dependent on where you live.

Demand less Now!

Finally, I just want to touch on how this jobs transition links to the climate emergency, which is where we started. In 2022 Green House interviewed ecological economists, climate researchers and green politicians and compared what they said.¹⁶ They told us that the climate emergency requires us to go beyond scaling up renewables, to reduce overall energy demand. But energy demand has never been decoupled from economic growth, which means that the nature of the economy must change, and crucially also requires redistributing resources through society. This will mean the health of the economy must instead be tied to what makes for healthy communities within a healthy planet – increasing wellbeing and equality as a result of meaningful jobs that cut our ecological and climate impact.

Capitalism seeks to narrow our thinking about demand reduction to the impact of high carbon advertising. This is clearly insidious. For example, consider the links between Love Island, social media influencers promoting outfits worn and fast fashion that literally flies newly created fashion around the world. But it stops us looking beyond current ways of doing things. We need a jobs-rich transition, i.e. one that actively involves citizens everywhere, that shifts us to a green future rather than pivots the economy back to growth.

We interviewed the lead author of the section on demand reduction in the IPCC's Sixth Assessment Report in 2022. She said, "There is no time left: we need a metamorphosis not a transition or transformation. We need to change everything." But what rang out to me most was one key finding. Let me paraphrase. Demand reduction alone will achieve

16 <https://www.greenhousethinktank.org/rethinking-energy-demand-framing-report/>

5% reduction in carbon emissions by 2050 but by changing cultures, institutions and infrastructure systems that create and sustain demand at the same time, it is possible to reduce demand for materials and energy, and associated carbon emissions, by 70%.

How to do this? We interviewed Professors Elizabeth Shove and Greg Marsden, who led work in demand reduction across buildings and transport. They highlighted the need to change systems of provisioning alongside daily practices. Shift out of cars to active travel at the same time as creation of low traffic neighbours but re-localising production and consumption to reconnect communities. Change what we wear at different times of the year.

But the biggest challenge to reducing demand was one of redistribution.

Our Belgian partners, Etopia, highlighted how the fair rationing policies introduced in France during the First World War were not as some might have us think some top-down imposition but were demanded by the people.¹⁷ Why? Because maximum price controls left food and fuel beyond the reach of many, leading to mass social unrest.

One way to provide that kind of social policy today, to remove the need for energy top-ups and food banks and ensure all can cover such basic needs would be a Universal Basic Income. Ironically, throughout the recent energy crisis in the UK the opposite of this was maintained – a universal basic energy charge to everyone. As a maximum price was imposed for energy use in the UK the energy companies increased the standing charge on electricity and gas supply, even more. So those least able to afford energy were penalised forcing even more ‘customers’ onto prepayment meters. Both standing charges and prepayment meters mean that in the UK the customer is rewarded for using more energy, rather than encouraged to reduce demand.

Sufficiency: An Economics that addresses Limits and Inequality

Perhaps the clearest exposition of how environment limits and inequality are related is set out by Kate Raworth, in *Doughnut Economics*.¹⁸ The inside and outside of the economic ‘doughnut’ represent the minimum and maximum amount of resources consumed by individuals in a society – and the thickness of doughnut is an indication of the level of inequality. To be sustainable two things are required. Firstly, the inside of the doughnut must be above the ‘social foundation’ for a decent quality of life – so the economy serves the needs of everyone. Secondly, the doughnut should not be too fat, such that the outside of the doughnut, reflecting the overall level of consumption of society as a whole exceeds planetary boundaries – not just for climate change, but other ecological limits too.¹⁹

17 <https://gef.eu/publication/liberte-egalite-sobriete/>

18 <https://www.kateraworth.com/doughnut/>

19 <https://www.stockholmresilience.org/research/planetary-boundaries.html>

So how does the UK currently stack up? In 2022 the UK used around 2000 TWh of energy each year, of which the energy used for transport was around 600 TWh.²⁰ Considering current inequality in energy consumption, this equates to around 7000 TWh for the highest income decile in the UK, and around 800 TWh for the lowest income decile.²¹ This means the energy consumption of the richest 10% is nearly nine times that of the poorest 10% of the population. The energy consumption of the richest 10% is dominated by transport related emissions, whilst that of the poorest 10% is predominantly due to home heating and electricity. This highlights the importance of reducing transport emissions for the richest, and how the retrofitting homes will proportionally benefit those with the lowest incomes the most.

One way to see how sustainable this current UK 'economic doughnut' is would be to compare it to the fair share of global energy consumption needed to limit global heating to below 1.5°C.

What might doughnut economics imply globally? How might eliminating poverty and ensuring that basic needs for all are met be achieved alongside the shift to live without driving climate breakdown? Research by Millward-Hopkins *et al.* recently suggested that the minimum energy consumption per person for a decent living standard globally would be around 15GJ/person in 2050. Applying this to the UK would give an annual energy budget of around 350 TWh.²² This would mean that the *average energy use per person would be less half that for lowest decile UK population*, or little more than half that used for transport alone. To put it another way, for the UK economy to be sustainable, the outside of the doughnut must be within where the inside of the doughnut currently is. This would require nothing short of radical demand-side changes to reduce consumption alongside rapid deployment of renewable energy and other technologies to change the nature of the UK economy and how we *all* live.

So if we are serious about the climate emergency and about reducing scale of material and energy consumption that the likes of circularity gap and emission gap reports highlight then we need to get serious about environmental limits and how this must also drive down inequality as a society embraces huge disruptions and change. If we, that is all of us, are serious in facing up to the climate emergency that confronts us, then we are equally committed to the need for a far more rapid transition to zero carbon, and a greater the need for redistribution. And vice versa.

20 Digest of UK Energy Statistics (DUKES) 2023, Table 1.1 (alternative units)

https://assets.publishing.service.gov.uk/media/64c11193d4051a000d5a9405/DUKES_1.1_alternative_units.xlsx.

21 Researchers found that in 2022 the UK energy use varied from 47 to over 405 GJ adult equivalent/year. This equates to around 800 and 7000 TWh for the lowest and highest deciles of the UK population. Private transport was the highest energy use for the richest, housing for the poorest.

<https://www.sciencedirect.com/science/article/pii/S0921800922003470>.

22 <https://www.sciencedirect.com/science/article/pii/S0959378020307512>.

Choosing a New Way Forward

So where does that leave us? On first glance it would appear we have three choices: to ignore climate change, pursue green growth or act on the climate emergency. These are considered below.

The first option is that epitomised by right-wing politics and global consumer capitalism. While this might, at least on occasions, pay lip service to the green agenda, its structures and actions still fundamentally *ignore* climate change. **This is continuing to drive up inequality within and between countries**, such that the economy increasingly serves a smaller subset of the global population – whilst placing us all at the mercy of dangerous climate change in the future. This is epitomised by Saskia Sassen’s description of the economy expelling both large numbers of people and large areas of the planet as beyond that which is served by our economic system.²³

Some mainstream optimists place at least some (or all!) their hope on a reformed capitalism being able to **deal with climate change through technology-led green growth, at least at some point in the future**. This not just risky – it is a deceitful lie. Green growth still concentrates wealth to the few, whilst shielding high-spending Northern and urbanised populations from the continued exploitation and extractivism that underpins this, and the harsh reality is that at best it will deliver only slightly delayed climate meltdown compared with the first scenario.

Global capitalism draws both of these, growthist positions. They are but two different narratives that fit within the current economic and political architecture – different stories that seek to justify sustained growth of increasingly globalised capitalism: continuing to concentrating power and wealth; and continuing to drive up inequality and planetary system failure. They either deny or green-wash over the scale of the climate and ecological emergency that confronts us. Politicians representing different ends of this status-quo continuum, such as the Conservatives and Labour in the UK, deny the political space to contend that this is flawed, and to consider the real alternatives that exist.

There is a real need for the third choice, the only real alternative, to gain in confidence such that it becomes the mainstream. This is to deliver **a rapid, green, jobs-rich, transition** that cuts demands for materials and energy, supported by global agreements that curtail resource extraction. This would be reflected in a smaller global economy, with far greater circulation of money locally. Instead of tracking aggregate consumption levels through GDP growth, governments must prioritise sufficiency: delivering quality of life for all.

Jonathan Essex

23 <https://www.jstor.org/stable/j.ctt6wpqz2>

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Email: info@greenhousethinktank.org

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