

Alternative Environmental Policy Report

Labour believes that the changing climate is one of the greatest global challenges and that global temperature increases require continued action to reduce carbon emissions. We need a renewed worldwide effort to tackle climate change following the landmark Paris Agreement in 2015.

Unfortunately, while the Paris Agreement of 2015 makes the laudable commitment to keep warming below 2°C, or even 1.5°C, the accompanying emissions pledges will not succeed in doing this¹. To date, policy makers have not faced up to the awesome magnitude of the task required to meet these temperature goals. To have a 50% chance of keeping warming below 1.5°C by the end of the century, net global emissions would have to fall to zero by 2050². Even this would still leave a 5% chance of potentially catastrophic warming over 3°C³. Few would be willing to get on a plane if they knew there were a 5% chance of it crashing. More to the point, few would be willing to send their children and grandchildren on such a plane.

Mitigating climate change is not something which can be done by a single country and certainly not by a relatively small one such as the United Kingdom. However, that is no reason to do nothing. The UK must unilaterally adopt the goal of complete decarbonisation on as short a time-scale as possible. In doing this we will show that we are serious in international negotiations and set an example for the rest of the world to follow. In effect, Labour will be declaring a “war on climate change”. These words are not used lightly, as an economic plan similar in scope to those used during the World Wars will be required.

Such a plan must look at least 20 years into the future. It must be extremely detailed and encompass an enormous number of sectors, including electricity, transport, housing, and heating. It will also need to include measures to address three often-overlooked aspects of climate policy. The first is the emission of high-potency greenhouse gases such as methane, nitrous oxide, and fluorinated gases. When weighted for global warming potential, these make up nearly 20% of UK emissions, with methane being the most significant⁴. Typically, emissions of these gases are easier to prevent than those of carbon dioxide, so rapid action should be taken to reduce them. Secondly, the role of “negative emissions” technology, which most plans for combating climate change now require, must be considered⁵. This

¹ [“Paris climate deal is agreed – but is it really good enough?”](#), Michael Le Page, *New Scientist Magazine*, 12 December 2015. Accessed 27 March 2017.

² [“A roadmap for rapid decarbonization”](#), Johan Rockström et al., *Science*, 24 March 2017. Accessed 4 April 2017.

³ [“Climate change morphing into an existential problem”](#), Veerabhadran Ramanathan, Oxford Martin School, 10 March 2017. Accessed 5 April 2017.

⁴ [2015 UK greenhouse gas emissions, final figures](#), Department of Business, Energy, and Industrial Strategy, 7 February 2017. Accessed 27 March 2017.

⁵ For an overview of the technology and its potential problems, see [“Will negative emissions technology get us to 2 degrees?”](#), Leigh Phillips, *Road to Paris*, 19 April 2016. Accessed 7 April 2017.

involves planting trees, burning them, and sequestering the released carbon underground. Finally, the effect of land use changes (e.g. deforestation, conversion to agriculture), from which net emissions are required to reach zero by mid-century in at least one climate plan⁶, will need to be accounted for.

By investing £500 billion in infrastructure backed up by a publicly owned National Investment Bank and regional banks we will build a high-skilled, high tech, low carbon economy to help generate a million good quality jobs. Our task now is to identify where and how to best spend this money.

Energy

We will invest in and deliver clean energy and curb energy bill rises for households to provide energy for the British public. Labour acknowledges that the energy market is in need of reform and will act to redevelop our energy supply by making it both clean and affordable so that it can work for consumers and the environment. In particular, the very existence of a market in electricity must be brought to an end and Labour pledges to bring this sector back into public ownership.

A fully costed low carbon energy platform that includes renewables, nuclear and green gas should be developed and publicly financed options should be considered to ensure that the UK has a low carbon economy that works for consumers moving forwards. Such a plan will need to rely heavily on nuclear power⁷. Labour recognises that many will be uncomfortable with such a plan, but we need to face up to the impossibility of powering Britain solely off of her own renewables⁸.

Nuclear power can be most effectively deployed by the state using a standardised design, adding another argument for nationalisation. A similar argument can be made about renewable power sources. Labour will create a new, publicly owned, Power Generation Board (PGB) out of existing nuclear and renewable capacity, which will also be given control over the national grid. This body will be tasked with building new generating and grid infrastructure to provide a clean and reliable energy supply. Market fluctuations prevent the stability needed to make long-term investments, so the PGB will act as the monopoly wholesaler in electricity. As such a monopoly violates EU energy directives⁹, Labour will seek to ensure that any Brexit deal will not see Britain bound by such rules.

The necessity of building large amounts of new infrastructure conflicts with the need to address high energy prices. Progressive tariffs could present one solution. These would see every household given a minimum amount of electricity at low or zero-cost, with the price per additional kilowatt-hour rising to current levels and above depending on how much is used in a given month. The price bands could be structured such that high-use customers are

⁶ Rockström et al., 2017.

⁷ See, e.g., "[A 21st Century Energy Policy](#)", Christopher MacMackin, *Labour Policy Forum*, 7 March 2017. Accessed 7 April 2017.

⁸ [Sustainable Energy – without the hot air](#), David MacKay, 2009, p. 103-112. Accessed 7 April 2017.

⁹ [Energy Market Legislation](#), European Commission. Accessed 7 April 2017.

effectively paying for the electricity of low-use customers and this system would not be a cost to the government. However, for this to work, all consumers would need to be buying from the same electricity supplier. As such, supply and distribution should also be nationalised and either folded into the PGB or passed to devolved bodies. Note, though, that these tariffs will require careful evaluation to ensure that they are not benefiting the rich, who have costly energy efficient homes and appliances, at the expense of the poor, who do not.

Electricity represents 29% of greenhouse-gas emissions¹⁰ and less than 20% of total energy use¹¹. The rest is made up primarily by gas and petroleum products, used for heating, industry and transport. Green gas could be introduced into the gas supply as a short-term measure to reduce emissions from heating. Some hydrogen could also be added and, if appliances are converted, the gas supply could be switched entirely to hydrogen. However for new houses (and, in the mid-term, for existing ones), better energy efficiency can be achieved using electric heat pumps. In high-density areas, council-owned district heating systems can also play a role. The exact schedule for the introduction of such technologies will be an important component of the decarbonisation plan. Transport will need to be electrified and plans will be developed for this by the Housing, Local Government and Transport Policy Commission.

In addition to making our energy cleaner, much can be done to reduce energy usage and this must also form a part of the decarbonisation plan. The Housing, Local Government and Transport Policy Commission will develop plans to ensure that all new homes are built to the highest standards of insulation and designed to maximise daylight and heat from the sun. A program will also be developed to retrofit old homes to increase energy efficiency. Restoring the ability of local authorities to build new homes would give them extra muscle, by force of example, in determining development applications from private developers, which currently side-step numerous housing targets, including environmental ones, on the grounds of alleged “non-viability”. Labour will introduce strict efficiency requirements for appliances and create a buy-back program for old models which will then be replaced with more efficient versions.

Agriculture

Agriculture is a major source of greenhouse gases, making up 10% of the UK’s total¹². These are mostly in the form of methane and nitrous oxide. The former is produced in the digestive systems of livestock (particularly cattle) while the latter comes from the use of fertilisers. Labour will introduce measures to reduce these emissions, including more precise application of fertiliser, better soil management, different crop rotations, new animal feeds, supplements to animal feeds, and breeding^{13,14}. Education about such measures will be

¹⁰ Department of Business, Energy, and Industrial Strategy, 2017.

¹¹ [Energy consumption in the UK](#), Department for Business, Energy & Industrial Strategy, 30 November 2016. Accessed 7 April 2017.

¹² Department of Business, Energy, and Industrial Strategy, 2017.

¹³ [Agriculture Sector Emissions](#), United States Environmental Protection Agency, *Greenhouse Gas Emissions*, 14 February 2017. Access 29 March 2017.

made available to farmers and agricultural subsidies will become conditional on action to reduce farm emissions.

Transport

Unlike the Tories, Labour understands that local transport services are vital for our communities, for local economies and for the environment. When local transport fails it has a huge impact on people's work and family life. Labour will ensure that communities have a real say in decisions about local transport and make providers accountable to the public they serve.

We need a transport system that works for local communities. As well as playing a critical role in our everyday lives, the transport sector plays a critical role in supporting the economy and could play its part in reducing our air pollution emissions. In many parts of the UK the three major barriers to using public transport are affordability, availability and access.

Rail

The Tories insist that privatisation delivers cheaper tickets and lower subsidies, yet under this Government we have some of the most expensive fares in Europe. Building on the work of last year's Transport Policy Commission, Labour has a different plan: taking the railways back into public ownership and putting passengers not profit first. This can be done easily and cheaply by passing franchises to a public operator as they expire.

However, the franchises represent only one component of the privatised rail system. Labour must also address issue of the Rolling Stock Companies (ROSCOs) which lease the trains to the franchise operators. These companies are obscenely profitable, take essentially no risk, and have failed to adequately invest in new rolling stock¹⁵. Nationalising the ROSCOs would be quite expensive, so one approach would be for the government to regulate them and trim the profit margins. Where new rolling stock is introduced, it should be publicly owned. As decarbonisation demands a campaign of rail electrification, plenty of new stock will be required. Labour will consider recreating British Rail Engineering Limited to build this in-house.

Labour recognises that the present situation at Network Rail can not continue. Currently it provides a hidden subsidy to train operators by charging artificially low track access fees¹⁶. The difference is made up by a government grant and borrowing. With each infrastructure upgrade, its debt continues to balloon. While not sustainable, this has led to increased investment compared to the days of British Rail, when funding was at the whim of whoever was in government. A new model is clearly needed and, in addition to determining *what* new

¹⁴ "[Agricultural emissions 'reality check'](#)", Claire Marshall, *BBC News*, 18 May 2016. Accessed 29 March 2017.

¹⁵ [The Great Train Robbery: Privatisation and After](#), Andrew Bowman et al., 7 June 2013. Accessed 28 March 2017.

¹⁶ *Ibid.*

investments should be made (e.g. electrification), this policy commission will develop detailed proposals for this over the coming year.

Labour must also consider how a newly renationalised rail sector should be structured so as to ensure democratic control and efficient operation. It has been suggested that the railways should be more decentralised than they were under British Rail¹⁷. To this end, large local authorities will be given the power to manage commuter rail, in the model of London Overground. However, devolving regional rail services risks continuing the fragmentation of the privatised era. A compromise would be to have trains operated by a single national company but allow local and regional governments to be represented in the administration of regional routes.

Buses

Buses are the most frequently used form of public transport. Building on the work of last year's Commission, we will give local authorities increased franchising powers to run and manage their local bus routes. This means that, even if a private company operated buses, it would do so under contract with a local authority, which sets and collects fares, determines routes, etc. It is recognised that private operators will likely fight attempts by local authorities to do this^{18,19}, so councils must be equipped with policy tools to overcome such resistance. This will include central government funding set aside to help buy or create council-owned bus companies. A much greater emphasis will be placed on integrating buses and local transport with the rail system. Regional and national buses will be taken back into public ownership. There may be a role for devolved administrations to play in the management of some of these services, on the condition that they are well integrated with other local and national routes. Electric buses will be phased in, using either battery or trolley-bus technology.

Other Public Transport

While incremental advances can reduce carbon emissions from aviation, we recognise that steps must also be taken to reduce short-haul flights. Labour will examine whether current ferry services are adequate and whether these should be brought back into the public sector. Ferry service will be integrated with rail so as to provide a seamless alternative to flying. Rationalising air routes will also go some way to reducing emissions from aviation, and to this end renationalisation of airports and re-regulation of airlines will be pursued. The feasibility of a rail tunnel connecting Britain and Ireland will be considered, as this could replace particularly busy air routes.

¹⁷ E.g. "[Getting back on track: an alternative to private railways](#)", Paul Salveson, *Red Pepper*, 1 October 2013. Accessed 28 March 2017.

¹⁸ "[Bus test case looms as Tyne & Wear seeks to wrestle back routes](#)", Gwyn Topham, *The Guardian*, 2 September 2013. Accessed 7 April 2017.

¹⁹ "[Bus company shares leap after re-regulation plans defeated](#)", Ben Martin, *The Telegraph*, 3 November 2015. Accessed 28 March 2017.

A running theme through this document has been the need to integrate transport across jurisdictions and modes. This will make public transit a more viable alternative to driving and flying. To further encourage use, Labour will look to make local transport free at the point of use. Regional and national travel would still require fares, but a single, simple ticketing system will be adopted across the entire country for buses, trains, and ferries, regardless of operator, allowing trips to be planned and purchased in a single place.

Private Vehicles

While an affordable and comprehensive mass transit system will go some way to reducing the use of private automobiles, it obviously can not eliminate it. Labour will set a date beyond which all cars sold in Britain must be electric (or, potentially, hydrogen) vehicles. For this to be practical, an upgrading of the electricity transmission and distribution grid will be needed, along with the roll-out of charging infrastructure and battery-swap stations for electric cars. A public electrical company would be ideally placed to operate these. Widespread adoption of electric vehicles would also be useful in levelling out peaks in electricity demand, as chargers and battery-swap stations can be programmed to charge when demand is low (e.g. overnight) and, if necessary, feed some energy back into the grid when demand is high²⁰. Regulations to encourage such a practice without making it onerous to the users will be developed.

²⁰ MacKay, 2009, [p. 194-195](#).