

JUST TRANSITION AND ENERGY DEMOCRACY

A civil service trade union perspective



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1. INTRODUCTION: WHY CLIMATE CHANGE IS A TRADE UNION ISSUE

What do we think of when we read, hear or talk of a Just Transition? It may not yet be the subject of everyday conversation but a good start is the 2015 Paris climate agreement. After trade union lobbying it included reference to “a just transition of the workforce and the creation of decent work and quality jobs”.

The International Trade Union Congress (ITUC) describes Just Transition as “a tool for a fast and fair shift to the low carbon and climate resilient society”. Most definitions refer to a framework developed by trade unions and environmental campaigners which encompasses a host of social interventions essential for protecting workers jobs and livelihoods when economies are shifting from their dependency upon the burning of fossil fuels to a zero carbon sustainable economic model. All positive as far as it goes.

The 2015 Paris COP21 climate agreement between world governments recognised that climate change represents an urgent and potentially irreversible threat requiring deep reductions in global emissions to keep average temperatures below 1.5 to 2 degrees Celsius. For the first time an international agreement reached a global consensus.

In a world of “alternative facts” this is a step forward but the Paris agreement is deeply flawed. It is not binding upon governments. Major polluting industries like aviation and shipping are not included. In fact, global emissions are expected to increase by 3 to 4 degrees rather the 1.5 degrees Celsius target in the agreement which covers the period 2020 to 2030 and will not be reviewed until 2023.

Governments continue to ignore former World Bank chief economist Nicholas Stern’s¹ conclusion that climate change is the greatest and widest ranging market failure in human history yet rely on failed market mechanisms and negative emissions technologies, such as biomass energy and industrially unproven carbon capture storage (BECCS). Since the UN Intergovernmental Panel on Climate

“Solidarity remains our most powerful weapon against the transnational corporations and financial elite who dominate the world”



Change (IPCC) first reported in 1990, CO2 emissions have actually increased by 60%. So while Paris provides a loose framework holding governments to account there are no mechanisms in place nor the collective urgency to avert potentially catastrophic changes to the earth’s climate. History suggests we will need to make a decisive turn to collective action on a local to global stage to make the fundamental changes needed.

Trade unions are built on a principle of solidarity, and fulfil the necessary role of countering the vast imbalance of power and wealth between capital and labour. It is a living history, illustrated by the strike of 150 million Indian workers in 2015; the biggest general strike ever recorded.² Solidarity remains our most powerful weapon against the transnational corporations and financial elite who dominate the world.

The global economic system produces extreme wealth for the few and increased impoverishment for the many. A feature of the neo-liberal period from the 1980’s onwards is a rapid rise in carbon emissions and vested economic interests enjoying record profit yields.

The analysis and arguments set out in this pamphlet are written from the standpoint of a trade union that believes climate change is an issue for trade unionists and workers. The Public and Commercial Services Union (PCS) represents over 180,000 workers in the civil service, public bodies and employed by private companies. Our members are employed in various public and regulatory bodies with responsibility for environmental policies and practice, and fulfil important roles in the regulation and enforcement of environmental standards.

PCS has become recognised as a trade union active on the issue of climate change. At the same time, PCS members face an unprecedented attack upon their pay,

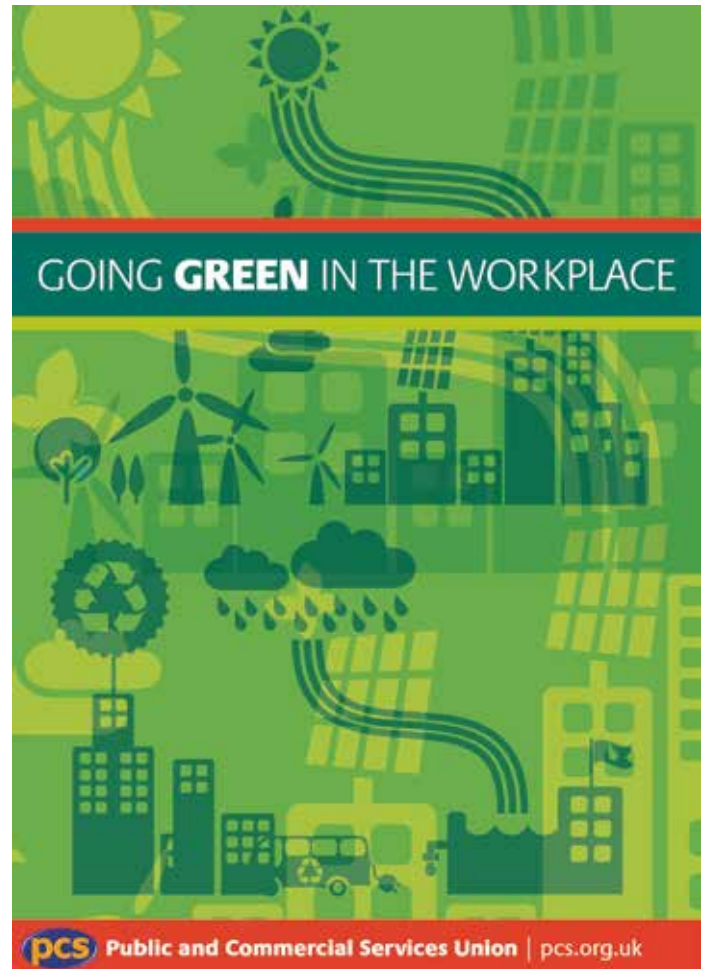
jobs and terms and conditions. Following Brexit there is no respite for public sector workers and those who depend upon the services we provide. Trade unions continue to operate under laws that are “the most restrictive on trade unions in the western world”³ and the Trade Union Act 2016 was described by leading industrial relations academics “as the most damaging attack upon trade union rights since the combination laws of the 1830s”.⁴

The democratic right of trade unions to recruit, organise, assemble, bargain and strike is legally restricted not because unions are irrelevant or a relic of the past but for reasons precisely the opposite. After a decline in recent decades there are healthy signs this is being arrested. With over 6 million members British unions possess enormous latent power that is still feared and reviled in equal measure. It often seems we’ve been reading the obituary of trade unionism in the UK ever since six agricultural labourers gathered under a sycamore tree in the village of Tolpuddle.⁵

PCS has also had to contend with an attack upon its rights to represent its members. This came in several ways. First were massive cuts in time for elected reps to represent members. This was designed to weaken workplace organisation and reduce the influence of the national union. A leaked document of senior officials in Her Majesty’s Revenue and Customs (HMRC) considered how to achieve the “organisational degradation of PCS’s capacity to represent its members” by “targeting elected leaders” and “reducing the influence of local representatives.”⁶

The most insidious measure attempted to hit the union’s finances by unlawfully removing the established method of collecting union subscriptions via payroll ‘check off’. An effective national campaign plan drew on the commitment of PCS officers and staff and the extensive network of committed reps across the union. This combined with the innate good sense of members who recognised the need for union protection in these uncertain times. The clause in the Trade Union Bill to remove ‘check off’ across the public sector was dropped after successful political lobbying. PCS have proved able, like the Prison Officers Association (POA) and Rail and Maritime Trade Union (RMT) before them, to defy this financial threat and continue to fight for their members.

In this scenario, when members look to the union to provide a militant defence of their pay, jobs and conditions, it becomes even more important to answer the question of why trade unions should concern



themselves with climate change. If unions exist to regulate relations between employers and workers and to secure the most favourable conditions possible, why should precious time, energy and resources be devoted to the issue of climate change?

This pamphlet attempts to answer this question by showing the growing body of evidence that climate change is a trade union issue. Far from being a distraction, climate change can reinforce trade union organisation, show their contemporary relevance particularly to young members, and start to place trade unions at the very centre of the crucial and urgent debate about what we mean when we talk of a just transition.

Reflecting the growing public awareness of the impact of climate change, PCS annual delegate conference adopted a number of policies which shaped how PCS started to engage with environmental issues. A TUC project in 2006/07⁷ ran green workplace projects across many industrial sectors, this involved training and supporting green reps, negotiating green workplace agreements and raising awareness of climate change within the trade

union movement. PCS played an important role in these projects which helped establish a network of green reps and the idea of workplace environmental audits. PCS worked with John McDonnell MP in proposing in the UK and EU parliaments' statutory provision for workplace environmental reps (WERS).⁸

There are many examples of struggles in trade union history on questions of public health and environmental degradation. Reducing CO2 emissions is a logical extension of the work of trade unions challenging hazards in the workplace. With 40% of greenhouse emissions generated in the workplace, trade unions have an important bargaining role in holding the employer to account by promoting a healthy, safe and energy efficient work environment. Extreme weather conditions such as flooding, rely on fire and emergency services and the Fire Brigades Union (FBU) campaign to defend a vital public service shows the link between trade unions and climate.⁹ The experience of New York health unions in the aftermath of Hurricane Sandy is another example.¹⁰

Unions organised in transport, fossil fuel and energy intensive industries understand the vagaries of the market and the threat to the livelihoods of workers in these sectors better than most. Thinking ahead and shaping future policy can safeguard members against the threat of economic change driven through in the interests of economic elites. Trade unions will need to mobilise their members around a clear industrial and political strategy if we are to make a transition to a zero carbon economy. The failure to achieve this is potentially devastating – melting ice caps, floods, storms, droughts, heatwaves, deforestation, species extinction, economic dislocation, increased poverty and climate refugees. There is an overwhelming scientific consensus that humanity is running out of time.

The 40th anniversary of the 'Lucas Corporate Plan: A New Trade Unionism in the Making'¹¹ produced by a shop stewards committee at Lucas Aerospace was commemorated in 2016. This important moment in working class history deserves rescue from the

“enormous condescension of posterity”.¹² Its detailed plan for diversification from the manufacture of weapons technology into socially useful production is of even greater relevance today. It carries important lessons for the debate and concept of Just Transition for workers in fossil fuel industries, arms manufacture and nuclear power in particular. Experience shows it is not enough, in fact is often counterproductive, to protest outside a workplace without attempting a genuine dialogue with the workers and putting forward an alternative worth fighting for.

PCS played a leading role in the Campaign against Climate Change (CACC) trade union group who brought together a number of unions with academics, campaigners and environmentalists to develop the One Million Climate Jobs¹³ report in 2009. Climate jobs has a common link to the Lucas plan and reinforced the idea that climate change is a trade union issue. It demonstrated the technical and economic potential of one million skilled, unionised climate jobs and at the same time cutting CO2 emissions by 80% over a 20 year period. With the necessary investment and public planning, climate jobs could be created in energy efficiency, retro-fitting and insulation of homes and public buildings, mass transit on a public, integrated green basis, and by the application of wind, wave and solar technologies as part of a revived manufacturing sector. This was described by Naomi Klein at Paris COP21 as “a fantastic tool for mapping the kind of climate justice we should all be working for” and it has led to climate jobs initiatives in several countries¹⁴.

Since the financial crash in 2008 we are told deficit recovery requires cuts in public investment. The UK is the seventh richest economy on the planet and since the crash, the richest 1,000 people in Britain have seen their monumental wealth double over that period. They constitute a mere 0.003% of the adult UK population and have enjoyed a staggering increase in wealth enough to pay off the entire UK budget deficit. PCS organise workers in HMRC who face a massive office closure and job cuts programme. The vital department of state responsible for collecting tax has been shown to be losing £125 billion a year to the public purse as a result of tax avoidance, tax evasion and uncollected taxes.¹⁵ Investing the money

“Investing the money needed to take the early and decisive action on climate change is not about affordability but about our priorities as a society”

needed to take the early and decisive action on climate change is not about affordability but about our priorities as a society.

The Lucas plan and one million climate jobs both offer inspiring alternatives. They take us beyond the immediate bargaining agenda of trade unions and raise important questions of industrial democracy and the economic planning that will be needed.

A TUC Congress debate in 2016 raised the Paris commitments, issues of public ownership, the dangerous levels of air pollution in the UK and the widespread global struggle for climate action. The call for a halt to airport expansion drew strong opposition from the major industrial unions notably Unite and GMB, who argued that the motion attacked workers in the aviation sector. In reality the hope of expanding aviation in an environmentally friendly way is flatly contradicted by the evidence of its environmental impact.¹⁶

Margaret Thatcher presided over the collapse of UK manufacturing.¹⁷ Regions where these jobs were based have suffered major economic decline and delivered the highest votes for Brexit. The fear of unemployment and job loss is a very real one. Exaggerated claims of new jobs in environmentally dangerous industries such as aviation, shale gas extraction (fracking) and open cast coal mining are presented as an opportunity for workers. In this context it is hardly surprising concerns about climate change can be seen to represent a threat to much needed employment. Arguments around these issues risk feeding a mutual mistrust that has grown up between the trade union and environmental movements. This pamphlet argues these divisions are an obstacle to realising a Just

Transition and a serious discussion is needed about how we overcome them.

The economic problems since the financial crash and the government agenda to make worker's pay for so called austerity and now Brexit, poses questions of trade union organisation and power outside the scope of this pamphlet. What is increasingly clear is that however trade unions respond to the issues raised in this pamphlet, the market has shown itself both incapable and an actual impediment to the measures required to address climate change.¹⁸

An open and urgent discussion amongst workers is needed to develop an industrial strategy that gives real protection to workers jobs, pay and conditions through the economic transition. It means learning from various initiatives like the Lucas Plan, One Million Climate jobs and campaigns and projects taking place in many parts of the world. These are a good start point in formulating an alternative to the anti-worker and environmentally destructive role of the energy giants who wield such economic power; where from the dawn of the industrial age a mere 90 companies are responsible for over two thirds of global emissions.¹⁹

Climate change and the industrial struggle of unions against workers continued exploitation opens up the opportunity to think and develop a strategy and programme that puts workers at the centre of the economic transformation that will be needed.

This pamphlet is a deeper exploration of the points raised in this introduction with a focus on the civil service in delivering publicly owned and democratically controlled energy. Based on the experience of taking up climate issues in PCS, it explores how we can develop a climate agenda relevant to trade unions and workers in Britain and across the world. Its aim is to generate informed debate and place working class interests at the heart of what is meant by a Just Transition.

Chris Baugh
Assistant general secretary

2. A WORKER-PUBLIC PARTNERSHIP FOR A ZERO CARBON ECONOMY

THE WORLD OF CLIMATE CHANGE

In Paris December 2015, an unprecedented agreement was reached by world leaders on the need for collective and “ambitious” efforts to combat climate change. The United Nations Framework Convention on Climate Change (UNFCCC) said it “charts a new course in the global climate effort” as it seeks to hold:

“...the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.”²⁰

The foundations for this agreement were laid some years before. In 1988, the respective UN World Meteorological Organisation (WMO) and Environment Programme (UNEP) set up the Intergovernmental Panel on Climate Change (IPCC) to provide an objective scientific view on climate change. It published its first assessment report in 1990. This was followed in 1992 by the United Nations Conference on Environment and Development, more familiarly known as the Rio Earth Summit.

Rio established the UNFCCC with the objective to limit and stabilise greenhouse gas emissions in the atmosphere. It was also the first attempt to develop strategies around sustainable development as defined by the Brundtland Commission report *Our Common Future*²¹ in 1987 as:

“...development which meets the needs of the present without compromising the ability of future generations to meet their own needs.”



“Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850”

Out of this process came the Kyoto Protocol of 1997, setting the first greenhouse gas emissions reduction targets for industrialised nations.

These events may feel far removed from the mass of populations but they are important in giving official recognition of the need to do something on climate. They also play a key role in defining the economies and societies in which we work and live in terms of obligations under respective treaties and protocols, and financial – market based – models for meeting them.

Climate scientists have been convinced about human induced climate change for some time, and even some scientists in the early 19th Century started to develop theories around fossil fuels and global warming.

Meteorologists in contrast have been cautious to declare that what we are experiencing today in the form of extreme weather is a result of a rapidly changing climate.²² However with almost daily pronouncements of another record being smashed... *the warmest consecutive month; the wettest winter; the strongest hurricane...* it’s now only the most stubborn of climate change deniers who ignore the reality around them.

The National Aeronautics and Space Association (NASA) in the US has charted the change in global temperatures since records began 136 years ago. According to NASA, the Earth’s global average temperature has increased by around 0.8 degrees Celsius (1.4 Fahrenheit) since 1880.²³ A pattern of warming the UN Intergovernmental Panel on Climate Change (IPCC) acknowledged in their fifth assessment report:

“Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850. The period from 1983 to 2012 was likely the warmest 30-year period of the last 1400 years in the Northern Hemisphere...”²⁴

If climate change in the form of extreme weather is one indicator of global warming, the others are rising sea levels, melting ice caps and degrading of the earth’s biodiversity.

In 2016, five of the Pacific Solomon Islands disappeared under rising seas²⁵. Whilst not populated it's an indication of things to come as many small island nations and coastal communities will disappear or suffer harm from climate change.²⁶ Melting of ice caps and inland glaciers is resulting in dangerous feedback loops that add to the warming of the earth, marooning wildlife and threatening the earth's fresh water reserves. The loss of bio-diversity means loss of habitat for animals and insects which are important to agriculture such as pollinating bees, and increases risk from harmful pests and diseases.

The prospect of catastrophic climate change is now such the US consider it a security threat.²⁷ A threat from the mass movement of people who will be displaced within their own countries and across borders as they flee the impacts of climate change in the search for resources, livelihoods and general safety. Whilst not directly attributable, the crisis in Syria was preceded by a severe drought in the Fertile Crescent region with crop failure causing many farming families to migrate from the countryside to urban centres.²⁸

Displaced people and refugees are often among the almost 3 billion people worldwide with inadequate access to energy. Largely still reliant on wood and charcoal to cook and heat their homes,²⁹ the burden falls largely on women and girl children tasked with collecting firewood on a daily basis further increasing their own vulnerability as they often have to travel long distances in the process.

The challenge in tackling climate change is also a fight to resolve global energy poverty, and how it disproportionately impacts within nations and across borders.

HOW DID WE GET IN SUCH A STATE?

When talking about the causes of climate change – unfettered emissions of greenhouse gases such as carbon dioxide, methane or nitrous oxide – which are collecting in the atmosphere it's hard not to slip into clichéd lines about power. But power is at the heart of the problem. The source of energy we use, how much we use, who owns it, and who controls it.

A good example of this is Exxon Mobile scientists who knew about the impacts of fossil fuel extraction and burning it at least since the 1970's but chose to suppress it.³⁰ Why? Because it isn't in their vested interests to stop doing what they are doing. So whilst fossil fuels have led us to this state, the interests of capital – or their carbon business models – have ensured governments didn't do



anything about it before we reached the crisis point we are at now.

Since the first IPCC Scientific Assessment report³¹ over 25 years ago, little is being done to curb global greenhouse gas emissions (GHG). In 2014, the IPCC noted that “total anthropogenic GHG emissions have continued to increase...with larger absolute increases between 2000 and 2010, despite a growing number of climate mitigation policies”.³² This includes the slowdown caused by the financial crash of 2007/08.

We are now investing in extreme extraction methods to literally bleed the earth dry in the form of shale gas extraction or coal gasification rather than energy technology that might respond to the crisis such as renewable energy. This includes in the arctic region where ironically the melting glaciers is making it easier to access the previously inaccessible oil and gas bounty for fossil fuel companies.³³

So the short answer of how we got into this state, is we didn't take collective action when we had the knowledge and opportunity to do so. But whilst we may be in the new age of the anthropocene³⁴ – human centred accelerated climate change – it isn't the vast majority of humans that created the problem.

A small group – the metaphoric 1% – have decided investing in a low or zero carbon future by way of renewable energy isn't good for their capital interests. Extractive energy means producing something for sale. Finding more oil or gas reserves creates more profit for the prospectors. Put up a solar panel or wind turbine, as long as the sun shines or wind blows, you have a limitless 'free' energy source that profiteers can't lay claim to in the same way as discovering new oil or gas fields.

Now we've left it so late we've no choice but to do an emergency stop. As in the words of Bill McKibben, US

Environmentalist and founder of 350.org, the maths just got worse.³⁵

Carbon Brief note that in order to have a 66% chance of achieving 1.5C we have to stay within a global carbon emissions budget³⁶ of 1,000 billion tonnes or 1,000 Gt of CO₂ between 2011 and 2100.³⁷ There is a growing consensus it may already be too late. The current trajectories we're on suggest that the carbon budget will be used up by 2021.³⁸ But, and it's a 50% but, if we take serious action now we might just be able to stay within the two degrees limit. That means removing all carbon emissions from the energy system which is responsible for two thirds of emissions by 2050 – fifty years earlier than the IPCCs projections.³⁹ To do this, we don't just need to transition to a 100% renewable energy system, but radically transform how we live and work, how we travel and our leisure activities.

“Workers have to rely on in-work benefits due to pay erosion and many face choices of whether to heat or eat”

In other words, a social and economic transformation that harnesses knowledge, technology, wealth and human activity towards the long term needs of humanity and the planet we inhabit.

THE REVOLUTION INDUSTRIELLE TO DE-INDUSTRIALISATION

A crucial part of understanding how we got here is looking back at where we came from and why the term “pre-industrial” levels is critical as a benchmark for energy transition.

In the 1750's, in the aftermath of their political revolution, the French coined the phrase revolution industrielle or Industrial Revolution.⁴⁰ The term was later popularised in UK history where the combination of capital, coal, technology, land and human labour led to industrial expansion at home and abroad.

What the French saw happening across the channel was less of a revolution however than a transition to a new economy, giving rise to mass waged and organised labour, and the industrial capitalism we experience today. It also started to forge the relationships of ownership and control between workers, public and private interests.

Capitalism existed of course prior to the industrial revolution as did an early factory system such as the silk industry in Derby.⁴¹ However harnessing coal as a productive energy source, the conversion of heat into mechanical energy in the form of steam, and more importantly rotation to turn the factory wheels, led the way for the growth of all kinds of manufacturing. But as Andreas Malm illustrates in his book *Fossil Capital*,⁴² the rise of coal as a dominant energy source was no accident.

Important in Malm's analysis is the transition from early capitalism founded on renewable energy sources such as water to using coal given the latter was more expensive and initially less efficient. Laying within this transition is the issue of control over the labour process as early disputes centred on working or labour time dictated by the rhythms of nature to working time dictated by the rhythm of machines. Symbolic to this day in the labour and production processes.

As well documented, the factory system rapidly grew around the textile areas of Lancashire, Yorkshire and the East Midlands. Along with displaced rural labour, cheap and ‘docile’⁴³ labour was found in the use of women and children. Workers were subject to degrading conditions to such an extent that Engels in his classic book on the English Working class referred to it as slavery to the whole property owning class as a worker is ‘sold’ not outright but piecemeal by the hour, day etc for a wage.⁴⁴ But workers were far from docile. This was also a time of growing trade unionism and labour disputes illustrated by the first Factory Act of 1833 putting restrictions on hours of work and use of child labour,⁴⁵ and the general strike or “plug plot riots” for better pay and political representation of 1842.⁴⁶

With the birth of the ‘satanic mills’⁴⁷ the rest they say is history and fast forward to today, with the rise and decline of organised labour workers are facing new degradations in the form of precariat work and ‘bonded labour’ of zero hours contracts. Workers have to rely on in-work benefits due to pay erosion and many face choices of whether to heat or eat. We have also seen the de-industrialisation of our economy as manufacturing has been replaced with a FIRE economy – Finance, Insurance, and Real Estate – referred to as the ‘rentier’ or financial capital economy.⁴⁸

STATE CONTROLLED INDUSTRY

Coal powered the industrial revolution, provided the gas lighting of industrial streets and factories, fuelled the railways and enabled the iron industry to develop into the steel industry. At its height in the 1920's, the coal

industry employed around 1.2 million workers. With the emergence of the private car and motorised buses,⁴⁹ as well as the replacement of coal with oil in naval submarines in the early 20th century, oil began to grow in importance being largely dependent on imports until North Sea Oil production came on line in 1975.⁵⁰

This wasn't a social revolution but one which evolved under a system of largely private ownership and the development of a growing working class labour movement – both in numbers and power – that started to fight back against the forces of capital and win victories for workers around degrading conditions and wages.⁵¹ A labour movement that was able to use the 'triple alliance' of miners, railway and transport workers to stop the wheels of the economy for example in the General Strike of 1926.

The years between World Wars 1 and II saw a growing closeness between big business and government with subsidies paid at taxpayer's or consumer's expense when facing difficulties for example in the coal mines. Coal subsidies were later withdrawn under the Mining Industry Act 1926 based on the recommendations of the Samuel Commission of 1925 which saw it as a reward for inefficiency. The Coal Mines Act of 1930 brought national regulation of the production, supply and sale of coal whilst the Coal Act 1938 brought the industry under public ownership. The Coal Commission established under the act to administer the industry had achieved little however, before its powers were aborted on the outbreak of war in 1939.

The Second World War, if only temporarily, distorted the traditional power of capital as the state 'appropriated' assets in the national interest for the war machine. Other measures included a 100% excess profits tax, incomes policy and strike deals with the trade union movement, and a mass of women joining the labour force. In its immediate aftermath, it also saw the birth of the welfare state and above all, a planned economy based around nationalised industries to aid post-war reconstruction.⁵² This included gas, electricity, steel and coal.

Whilst the Labour government of Clement Attlee may have supported the ideological principle of the common ownership of the means of production (still then included in the clause 4 of the labour party constitution⁵³), nationalisation meant state control. Some run as government departments, others at arms-length, with little role for workers in providing a public service in the public interest.

“The political attacks on the coal miners in the 1980's and 90's remain a defining moment of class struggle”

One of the failures of the nationalised industries was the conflict between state ownership and hands-on control. Concerns arose around accountability and efficiency, with hostility at direct government intervention in the form of pricing and investment policy. It also showed the contradiction of running effectively a state owned capitalist enterprise on a motive of profit with public sector interest.⁵⁴

Gas had largely been sourced from coal and importation of liquid natural gas from Algeria until the discovery and extraction of large reserves of natural gas in the North Sea in the 1960's. This saw a major transformation of how gas was supplied moving from decentralised town gas infrastructure to centralised supply. This included the national conversion of appliances in 13 million households and building a new grid network,⁵⁵ where for the first time, many households enjoyed near universal gas and electricity supply from public utility companies.

The oil and gas industry became a major employer both directly on the rigs and in supply chain businesses. Wealth flowed into Aberdeen as a haven for spending North Sea earnings, becoming known as the oil and gas capital of Europe.⁵⁶

The political attacks on the coal miners in the 1980's and 90's remain a defining moment of class struggle. Whilst these are not jobs we would be arguing for today, just as the industrial revolution marks a period of transition, so too does this period. It is also poignant, in that workers producing the North Sea oil tax receipts were unwittingly helping to pay for the destruction of the coal industry with the growing social-security bill for the coal workers being made redundant in the de-industrialisation transition.⁵⁷

Three decades on, we have little industry, declining and fragmented public services, a rentier economy, and a battered and largely defeatist labour movement. We have a democratic deficit as political institutions are increasingly discredited and face a new technological revolution that some argue will see the end of work.⁵⁸ Above all, we have no coherent energy or climate strategy to map a pathway to a zero carbon economy.

The World Energy Outlook 2016 paints a worrying picture.⁵⁹ Produced by the International Energy Association it forecasts production and consumption across historical trends until 2040. The good news is renewables are the world’s fastest growing source of energy with coal the least. The bad news is that “fossil fuels continue to provide most of the world’s energy in the IEO2016 Reference case: in 2014, liquid fuels, natural gas, and coal account for 78% of total world energy consumption.” Natural or fracked gas are seen to come increasingly on stream with the electric power and industrial sectors accounting for nearly 75% of world natural gas consumption.

Some solace from the figures can be taken in that they are projections based on today’s activity and do not take account of all government initiatives to reduce carbon emissions such as China’s announcement in November 2015 to reduce coal demand to address air pollution and CO2 emissions. However on current forecasts, coal is still set to provide 29% of electricity generation in 2040 and

renewables still only 28 to 30% of global share.

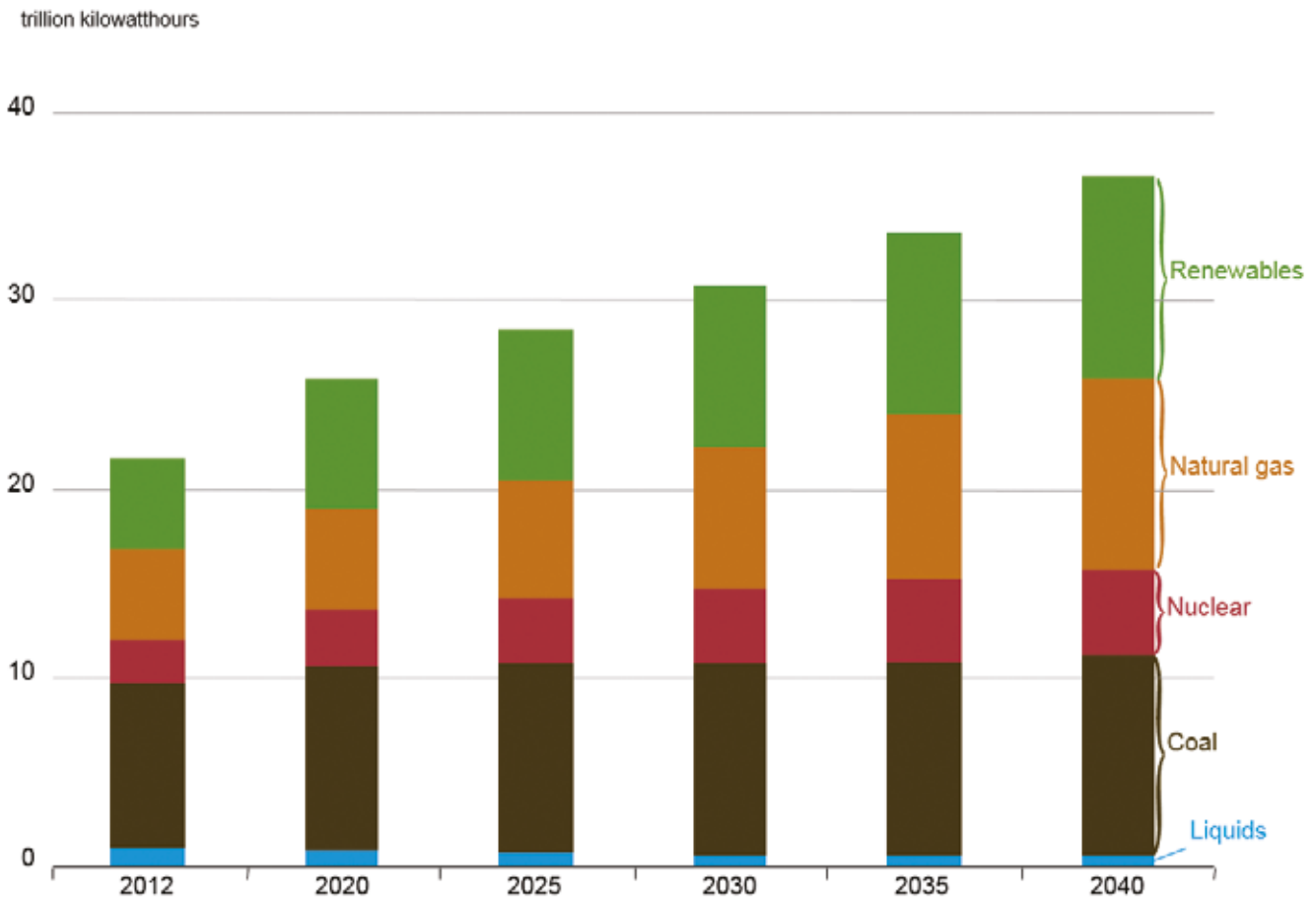
The last century showed in a brief period during and post war, what can be achieved with the right political will and collective action. As pointed out in the One Million Climate Jobs pamphlet⁶⁰

“...governments do things that ‘costs too much’ when they decide to do so” such as financing wars, or bailing out banks.

TIME FOR A ‘GREEN’ INDUSTRIAL REVOLUTION?

Today it’s often said that to transition to a low or zero carbon economy, we need a green industrial revolution. But what does that mean? Green jobs, a green economy, green capitalism, green growth, green industrial strategy, green politics – being the greenest government ever? Unfortunately painting the world ‘green’ however well meaning, is just greenwash.⁶¹

Figure 1-6. World net electricity generation by energy source, 2012–40



“The real solutions to the climate crisis are also our best hope of building a much more enlightened economic system—one that closes deep inequalities, strengthens and transforms the public sphere, generates plentiful, dignified work and radically reins in corporate power”

Since the 1970’s, whilst economies such as the UK’s were de-industrialising, it is no coincidence that the growth of neo-liberal ideology has been coupled with a rapid rise in greenhouse gas emissions from fossil fuels.

Naomi Klein was not the first, but perhaps the most popular commentator, to identify that the problem with the climate debate was that it was focussing on the wrong change agent and that we need to make

“...a persuasive case that the real solutions to the climate crisis are also our best hope of building a much more enlightened economic system—one that closes deep inequalities, strengthens and transforms the public sphere, generates plentiful, dignified work and radically reins in corporate power...”⁶²

As we saw with Exxon and their cohorts, the fossil fuel economy is about power and control, and why the transition is about more than advocating for ‘green’ capitalism.

Research has shown that just 90 companies and government-run industries have been responsible for two-thirds of anthropogenic carbon emissions.⁶³ Major players whether from the companies exploiting ‘resource cursed’⁶⁴ fossil fuel assets of countries such as Nigeria or Colombia or those countries directly exploiting their own assets such as in Saudi Arabia will not let these go easily. In the former, leaders protect the fossil fuel giants to keep political power whilst working in the interests of fossil fuel capital against their populations through human rights abuses particularly of environmental and trade union activists.⁶⁵ In the latter they also use the resources to maintain power not just to control their citizens but by buying the allegiances of western democracies hungry for their resources or to sell them arms.⁶⁶

In short, switching from fossil fuels to renewables is not enough. We need to address climate change as a toxic by-product of capitalism, unfettered growth and greenhouse gas emissions, and the concentration of ownership of public goods in private hands with ‘light touch’ government. We need to tackle it as a political process that confronts the inherent inequality and imbalance of power in our political and economic systems. And in that we need to challenge the conventional market based solutions of climate agreements.

THE GREAT TRANSITION – A WORKER-PUBLIC PARTNERSHIP

The World Energy Council illustrate what they call the Great Transition to 2060 and the energy trilemma⁶⁷ of energy security, energy equity, and environmental sustainability with three, rather arbitrary, musical scenarios:

Modern Jazz – driven by markets, strong innovation and rapid deployment of new technologies.

Unfinished Symphony – strong states direction with energy policy priorities focused on security and climate change.

Hard Rock – a fragmented world with a weak economy and strong nationalism.

Continuing with a musical metaphor, PCS believe there is a fourth scenario, the Brass Band – an energy transition based on real workers participation, public ownership and democratic control – a workers and public partnership.

The mining or factory bosses of yesteryear may have hoped the brass band would be a sober activity for workers in their leisure time, but it turned into a form of class solidarity and trade union strength we need to invoke again today.⁶⁸

We have much to learn from our rich industrial heritage and the wounds inflicted on workers. Above all, that this cannot be allowed to happen again as we face today’s energy and economic transition. Workers and trade unions need to be writing the score for transition based on energy democracy, and a re-visioning of our public services and the social relations between workers, communities, and government. In short, we need to conduct it on labour’s terms.

3. UK ENERGY POLICY AND CLIMATE CHANGE

UK climate commitments to the Paris agreement are bound up with the European Union aim of 40% reduction by 2025 on 1990 levels. With the decision to leave the EU, the UK now has to define its own contribution to reduce greenhouse gas emissions. Fortunately for the UK we have the ground breaking Climate Change Act 2008.⁶⁹ This sets out a series of actions for government to achieve an 80% cut in greenhouse gas emissions by 2050.

Section 4 of the Act establishes the principle of setting five yearly carbon budgets to meet this end goal. In July 2016, the government accepted the fifth carbon budget set by the Committee on Climate Change covering period 2028-2032. This sets emissions at 1,765MtCO₂e including emissions from international shipping (but not aviation). However, the government “recognises that current policies are insufficient to meet the requirements of the fourth and fifth carbon budgets.”⁷⁰

The Energy Act 2013, is another key piece of legislation providing for electricity market reforms, including a package of measures designed to incentivise up to £110bn of investment to update the energy infrastructure. This is largely predicated on increasing nuclear power supply, and the introduction of Contracts for Difference (CfDs) which “is a private law contract between a low carbon electricity generator and the Low Carbon Contracts Company (LCCC), a government owned company”.⁷¹

This guarantees the generator a ‘strike price’ reflecting the cost of investment and a ‘reference’ price as a measure of the average market price for electricity in the UK. This is supposed to ensure a stable revenue stream to generators and protect consumers from paying higher costs when electricity prices increase. The reality however is the government has now entered into agreement over the building of Hinkley point C with a strike price that is forecast to be generating the most expensive electricity in the world.⁷²

As this section will show, PCS agree government policies are insufficient. Further they are locking us into a future of fossil fuel dependency that will do little to redress this and change the energy mix within the coming decades.

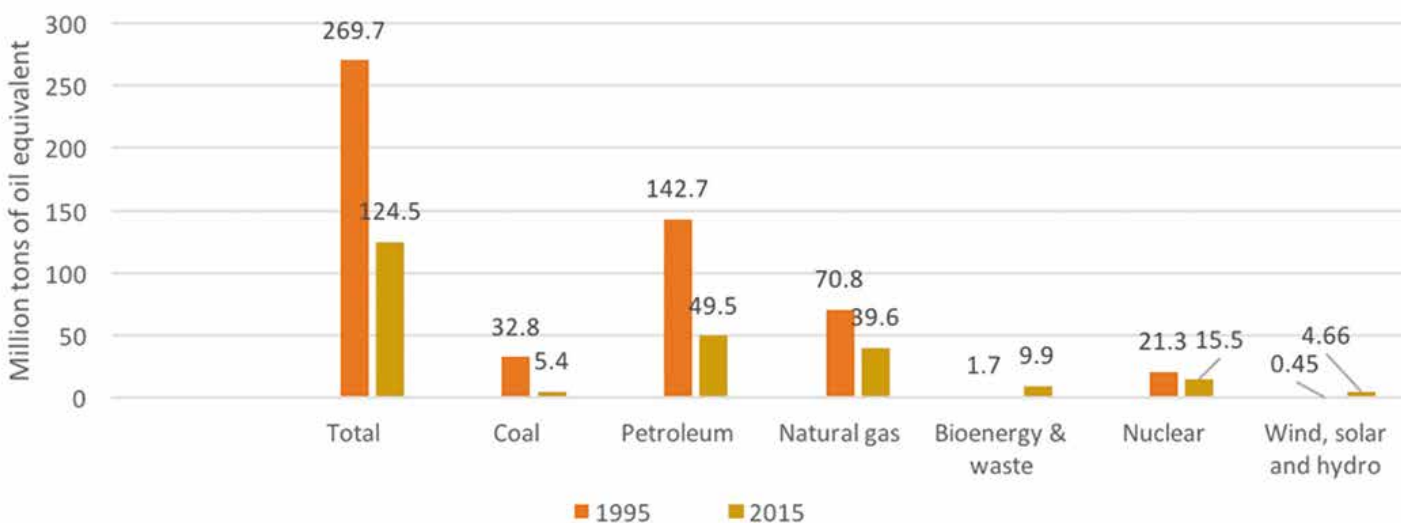
KEEP IT IN THE GROUND

Science tells us that to have any chance of reaching the “well below” 2 degrees Celsius target on climate change we need to keep fossil fuels in the ground. That means NOT exploiting 80% of known fossil fuels reserves by 2050. It also means the end to searching for and extracting new fossil fuel resources.

So what is it that stops the UK government formulating an energy strategy that does just that?

The indigenous UK energy generation mix between 1995 and 2015 is set out below.

TOTAL ENERGY PRODUCTION – INDIGENOUS PRIMARY FUELS



Source: www.gov.uk/government/statistics/total-energy-section-1-energy-trends

Whilst this chart shows a reduction in indigenous generation of fossil fuels in the past twenty years, as UK production has fallen namely in the oil and gas sector imports have increased. In practice despite headlines of record renewables production, it's really making little dent into the energy mix at least outside of Scotland. Future policy is aimed at increasing indigenous oil and gas supply but do little to increase renewables.

Not surprisingly energy policy is influenced by the underlying political philosophy of government. Meeting emissions reduction targets involves a level of central government planning and control which doesn't fit with the current model of privatisation and liberalised energy markets laid down from the first privatisations of the 1980's. Or so we are led to believe, as in fact the government has been planning.

The UK is due to phase out all its coal fired power plants by 2025 but only if shale gas is on stream.⁷³ There are also calls for 'clean' coal through the application of negative emissions technology (NET) in the form of carbon capture and storage (CCS) which is supported as part of the TUC 'balanced energy' policy.⁷⁴

Shale gas or fracking has been given the go ahead with hundreds of licences issued across the former industrial heartlands sold as a form of economic revivalism including in places the former energy advisor Lord Howell described as the "desolate North".⁷⁵ It may be some time before methane is leaking out the countryside but the decision of the Secretary of State for Local Government and Communities to overrule local democracy and give the go ahead to Cuadrilla to frack in Lancashire⁷⁶ shows the clear intention of government to force shale gas upon an ever opposing public.⁷⁷

In 2015, the Infrastructure Act was passed covering a "portmanteau" of issues from transport infrastructure to wildlife as well as shale gas drilling under people's homes. In such an encompassing Act it is easy to overlook another important addition - to "maximise the economic recovery" (MER) of North Sea oil and gas. The MER clause which means rather than keep it in the ground let's find more was formalised in the Energy Act 2016.

In October 2016, the Offshore Oil and Gas Authority, an arms-length body created in 2015, was formalised as a government company (GovCo) with a commitment to help "industry capitalise on the potential 20 billion barrels of oil equivalent (boe) that remain" in the North Sea⁷⁸.

North Sea oil and gas has long been a declining fuel resource peaking in the late 1990's. However rather than managing this decline – regardless of climate change concerns – the UK continues to try and maximise its revenues from ever harder to reach fields. As Professor Andrew Cumbers notes the focus of the UK government is on "cost-saving and incentivisation for foreign firms, often through tax incentives" without regard to climate change concerns.⁷⁹

Low oil prices in recent years have seen major job losses. The industry body Oil and Gas UK says that the industry supported 453,000 jobs in 2014 including direct, indirect or so called induced jobs in hospitality for example linked to the industry.⁸⁰ Well over 100,000 of this number were lost in 2016 with some of these workers joining the foodbank queues in Aberdeen.⁸¹ Those remaining on the rigs have seen health and safety measures cut back along with other terms and conditions.

There is no disagreement that offshore oil and gas extraction in Scotland is in decline but there is no agreement to manage this as part of an energy transition. So far the unions rightly fighting to protect current jobs are doing so backing corporate interests by calling for more extraction given the lack of a credible alternative for a just transition into new jobs in a renewables economy.⁸²

RENEWABLE ENERGY

On the renewables side, since 2010 we've seen a systematic rolling back of policy support for the renewables sector in solar, onshore wind and the zero carbon homes programme.⁸³ Not only has this been bad for our carbon budgets but also meant the loss of thousands of jobs. The Solar Trade Association reported a loss of near 18,000 jobs due to policy decisions in the year 2015/2016.⁸⁴



In a strange rationale, the government justified these measures on the basis of keeping down household bills. That might be credible if parallel steps were taken to address the profits of the “Big Six” energy companies and energy efficiency.

Another bizarre rationale is the success of the renewables sector and therefore a need to “stand on its” own feet. Again an excuse that lacks credibility when the fossil fuel industries receive vast subsidies in the form of tax breaks and direct government support. A form of environmental taxation on fossil fuels known as the Climate Change Levy, is now also to be applied to renewable energy. This has been compared to imposing an alcohol tax on apple juice.⁸⁵

A pledge was made by leaders of the G20 countries which includes the UK to phase-out ‘inefficient’ fossil fuels subsidies in 2009. Oil Exchange International has been tracking their progress on this. They reported in 2015⁸⁶ that there was a “large gap between G20 commitment and action” to the tune of \$444 billion in average annual subsidies in 2013 and 2014. Around four times the figure the International Energy Agency (IEA) estimates was provided in global subsidies to renewables in 2013. In addition, the UK is one of the few G20 countries to increase its fossil fuel subsidies at the expense of support for renewable energy investments.

Despite commitments to the Paris agreement and support for the Friends of Fossil Fuel Subsidy Reform,⁸⁷ the energy choices being made now are hard wiring our infrastructure to fossil fuels into the next decades. This also includes transport in the form of aviation and roads. And in a final last hurrah for the fossil fuel industry, we are exporting our carbon emissions to countries such as China in order to import back – at no emissions cost to the UK – the very products we could be manufacturing here.

The steel industry is a case in point. From the time Margaret Thatcher and Sir Ian MacGregor, a key figure of the miner’s strike in the 1980’s, brought the hatchet to the steel industry⁸⁸ in the 1970’s, employment in steel manufacturing has fallen from around 320,000 in 1971 to 18,000 today. The last vestiges of the industry fighting a ‘Save Our Steel’ campaign has no support from the government in the face of cheap steel imports from china, and despite calls for renationalisation of the industry.

It may seem counterintuitive to say this for a carbon intensive industry but if we are serious about climate change, we would be saving our steel. We need steel to build wind turbines and we need lots of wind turbines to

“The energy choices being made now are hard wiring our infrastructure to fossil fuels into the next decades”

generate renewable energy: offshore as well as onshore. We need steel to build electric cars, underpin new construction for homes, schools and hospitals, and to lay the tracks for high speed rail run on renewable energy. We need steel to lay the new piping for zero carbon energy.

In fact steel is needed in every aspect of daily life. However it’s a sector that needs rapid decarbonisation. In 2014 this most intense of the energy intensive industries was estimated to have emitted 16.45 million tonnes/year of CO2 with a further 1.95 million in electricity production for use within the sector. Currently it depends largely on coal and gas to fire the furnaces. Technology and other measures not wholly dependent on negative emissions technology do exist to make this transition. What doesn’t exist is the political will and commitment to research and development, blocked by short-term market logic.

An important question therefore in our market based responses is who decides which industries we keep and those we let float offshore to emissions havens? Statements abound as much sadly from trade unions as politicians that we need gas or nuclear to keep the lights on. But who decides how we fill these energy gaps?

There are many sides to the argument and nuclear is itself a separate debate, but we are dealing with science fact here and a consensus of nations as underlined by the Paris agreement. Therefore how do we get from a position where the Environmental Audit Committee calls for a moratorium on fracking as incompatible with climate change targets whilst the Energy and Climate Change committee say we need it as part of our energy mix?⁸⁹ How is it that a mass petition with thousands of names organised though Greenpeace or 38 degrees is discounted as carrying the same weight as the response of one individual from a fossil fuel industry?

IT’S DEMOCRACY, ISN’T IT?

Fracking

As we have seen the decision of the Secretary of State Sajid Javid to uphold the appeal of Cuadrilla to frack in Lancashire shows how little democracy counts at the



end of the day. Surveys routinely show that the public is against fracking more than it is in favour of it. That grows when the ‘frackerteers’ come knocking at the community door. Beyond calls to keep the green and pleasant land intact, many understand that ripping up the landscape and along with it communities in this modern day ‘Klondike’ for fracked gas will do little for our own energy security, as it will for energy prices, and above all the environment and climate change targets.

Emissions from fracked or shale gas may be lower in carbon dioxide than coal but they are higher in methane, a more potent greenhouse gas. Numbers of new jobs are widely overinflated if not blatant lies.⁹⁰ Health threats to workers and communities are underplayed but are such that the potential of silicosis from the sand used in the fracking process has been likened to a modern day asbestos waiting to happen.⁹¹

We don’t need to find this out for ourselves. A look across the Atlantic to the nirvana of fracked gas in the US tells us all we need to know and that should be enough to leave the ‘dream’ there.

Nuclear

To near unusual universal acclaim, the Hinkley point C deal signed off by the government of Theresa May in September 2016 was a bad deal.⁹² There are some similarities with fracking in that it’s not however universally seen as a bad deal for the climate. As with shale – or natural gas as some prefer to call it implying an almost neutral emissions status – some believe it is an essential low carbon energy source vital to our energy mix to reach zero carbon emissions.

Again there is the allure of jobs but unlike fracking, as a mature industry we know jobs do exist in nuclear and they tend to be well paid, unionised, and highly skilled.



Sizewell A and B nuclear power stations

As with gas, nuclear used to be under public ownership until privatisation in the 1990’s. The civil nuclear industry currently employs over 65,000 people across the supply chain.⁹³ However in recent years, as reactors are reaching the end of their lives, more is being done on decommissioning nuclear plants than producing energy from them.

Here technology is also changing and many see the future of nuclear as small modular reactors; not the monolith of untested technology planned for Somerset in South West England and already running well over time and budget in similar projects in France and Finland.⁹⁴ Again even those pro nuclear agree this type of centralised power system is wrong for future needs based on variable intermittency as a back-up for renewable energy.

Of course there is also the question of nuclear waste, its transportation and where to put it. Consultation with local authorities elicited some positive replies such as in Copeland in Cumbria but Cumbria County Council overruled this. However again it looks likely that government will override decisions.⁹⁵

The upshot here, as with fracking, is if the public have concerns and hope for any democratic process to oppose these plans, the government will either change the planning process or overrule it when it’s spent untold hours of time and money going through a fake exercise in democratic consultation.

Aviation

Aviation is another thorn in the climate budget side and unsurprisingly not popular with communities on the flight paths of aviation expansion plans. As with shipping, given the global nature of aviation emissions it gets to have its own greenhouse gas emissions targets. Sort of.



Aviation isn't included in greenhouse gas reduction targets discussed under the UNFCCC. Another UN agency called the International Aviation Organisation Commission (IAOC) meets to decide how to deal with aviation emissions. The IAOC last met in October 2016 and again in an unprecedented agreement hailed a victory, a new carbon offsetting programme was agreed. Note as with Paris, such agreements are hailed as unprecedented because getting countries to collectively agree anything is quite a diplomatic feat. In terms of the substance of what they actually agree there is less to be vitriolic about.

We're told that airport capacity needs to increase because passenger numbers are set to increase. But who needs to fly more?

In a report for the New Economics Foundation,⁹⁶ it found that by analysing data from the Department for Transport only 15% of people take 70% of flights, and most of those are to tax havens. Therefore it's not the average person taking an annual holiday for some sun or a visit to relatives that is the problem. It's mainly rich people who are again asking the majority to pay for their fossil fuel habit.

We're also told that this expansion has to happen keeping emissions from aviation to 1990's levels. The industry have found a clever way to do it; not by investing in alternative forms of transport which could be run on renewable energy but by asking others to pay by cutting their emissions further. And pay they will.

Additional aviation will use half of the UK's 1.5C carbon budget by 2050⁹⁷ which could be used for people in developing countries which need those fossil fuels to assist in their own energy transitions. It will also be the people living in precarious places more adversely impacted by climate change that will pay. For example,

small island nations, poorer countries such as Haiti regularly ravaged by hurricanes or even in some industrialised nations in poorer, low income, and often black communities⁹⁸.

In short, it's not people taking these decisions but government in support of capital. Just as we have seen in the decades of privatisation of our energy assets, the government acts in corporate interests for shareholder returns, not the interests of people for social returns.

HER MAJESTY'S TREASURY – THE ECONOMICS AND FINANCE MINISTRY

Energy policy is also greatly influenced by fiscal or macroeconomic policy as set by the Treasury, who have oversight in controlling all public expenditure; Government departments need their support and consent for any legislation or departmental commitments that affects spending.

A House of Commons Environmental Audit Committee report in 2016 on sustainability and the HM Treasury⁹⁹ concluded that:

“The Treasury is an influential government department with control over public spending, taxation policy, regulation and major projects. It is uniquely placed to take an overarching perspective and ensure departments and their policies across Government work to promote sustainability. There is considerable evidence, however that the Treasury fails to do this.”

As the report goes on to highlight, sustainability for the Treasury is about economic growth, not sustainability within the concepts of the Brundtland Commission referred in section 2, and has been a block on environmental and climate change policy. One particular telling reference is from the November 2016 High Court ruling on the case between Client Earth and the Department for the Environment, Food and Rural Affairs' (DEFRA) on exceeding legal air pollution limits which highlighted the instrumental role of the Treasury in blocking DEFRA's air quality plans. The report equally raises concern over the prioritisation of short-term gains rather than long-term investment.

As part of their departmental plan¹⁰⁰ however, the Treasury does speak of long-term investment and sees “reliable and low carbon energy, at a price we can afford” as central to this along with a “modern transport system”. For the Treasury this means investment in shale gas including the establishment of a Shale Wealth fund

from up to 10% of shale gas reserves, North Sea oil and gas production and new nuclear. The taxation regime is supporting fossil fuel companies with billions of pounds which could be invested in a zero carbon economy.

The government is also supporting UK foreign investment in overseas fossil fuel projects through a system of loans and export credit guarantees. According to the organisation DeSmog UK this amounted to £427 million of investment to companies such as Petrobras oil and gas in Brazil and supporting the development of petrochemicals in India 2015-16.¹⁰¹

In short the Treasury has a vested interest in maintaining a fossil fuel economy which it does by generous tax relief to corporations, with aims to cut corporation tax to 18% by 2020. These are the very tax receipts that it is also reliant on for the revenue. Therefore as part of the energy transition, there needs to be a change in the role of the Treasury to support a zero carbon economy.

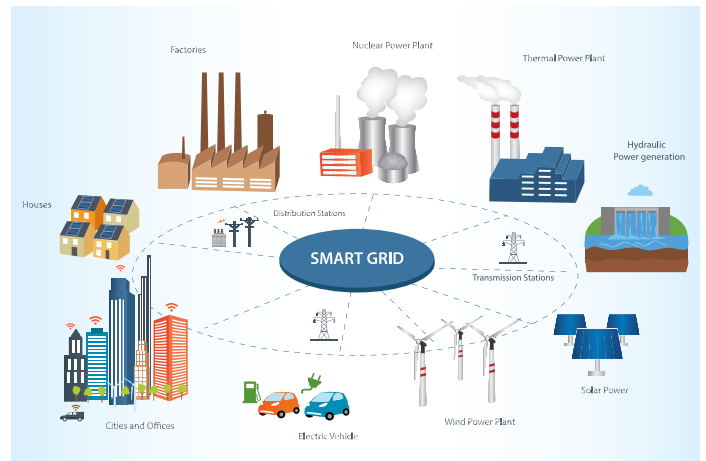
NEGATIVE EMISSIONS TECHNOLOGIES (NETS) – PUTTING OFF WHAT WE CAN DO TODAY UNTIL TOMORROW

One of the problems with greenhouse gas emissions targets is that it puts off what we should be doing today until tomorrow in the hope that still non-existent technology will bail us out. This is particularly true when it comes to politicians.

Grand statements for a zero carbon economy by 2100 made by the G8 in 2015¹⁰² are meaningless when none of those patting the others back will be around to be held accountable. Even 2050, which isn't such a long way off, will still be beyond the electoral lifetime of most of the current incumbents making our energy policy. Unfortunately it's an approach some trade unions and some environmental groups buy into too.

The UK government pulled out of an intended investment on Carbon Capture and Storage (CCS) in 2015 to much dismay of trade unions. CCS is a keystone of TUC policy, as part of a so called balanced energy policy which includes natural gas, and nuclear. One problem with CCS is that it's not yet a proven technology at scale. And given the scale of what we need to achieve in decarbonising our energy system we don't have the luxury to wait until it is. As Bill McKibben says, a parameter for any discussion on what we need is:

“If you have a solution that takes a very long time then it's not a solution....physics and chemistry are the problem here;



they in the end are the negotiating partners with which we're carrying out this bargaining and they're not very good negotiating partners, they really don't care that it's difficult.”¹⁰³

Whilst physics and chemistry may be the negotiating partners of the natural world, in the physical world we have to deal with politics and ideology. Here market based measures to combat climate change hold sway. Like NETS they are the ‘great money trick’ of climate change.¹⁰⁴ Essentially the biggest carbon emitters get to keep on consuming and offshoring their emissions through market based mechanisms like the EU-Emissions Trading Scheme (EU-ETS) to those who've either done least to cause climate change or like China, can get to take the blame by producing the goods we consume but no longer manufacture.

ENERGY EFFICIENCY, SMART GRIDS AND SUPERHIGHWAYS

Of course technology in and of itself is neither good nor bad but it's how it's applied and the politics surrounding it. The Lucas Aerospace workers who developed an alternative plan for socially useful production to fight redundancies in the defence sector in the 1970's is a good example of this.¹⁰⁵ The problem also is that the UK government investment in technology and research is woefully lacking, and just as with other spheres, not democratically applied.

Our energy grid is notoriously leaky, as are our homes and public buildings. A first step in filling the energy gap is reducing energy waste and reducing demand such as through retrofitting and insulation programmes. A programme that would also reduce energy bills for consumers and go some way to address fuel poverty.

Smart grids should also help to monitor demand and even out energy use across the grid. Due to the dominance of private energy companies there's social resistance given the valid concern they will be used to cut energy supplies to the fuel poor, and issues of data security. Smart cars powered by renewable energy are also being looked at by the government as is other 'smart' investment in technology. But the infrastructure to support these doesn't exist and the private sector is being looked at to fill the gap. Companies such as Ecotricity even installed their own charging points albeit to sell their own energy.¹⁰⁶

Therefore along with energy efficiency programmes, transmission superhighways are needed for power and energy that could quickly start reducing carbon emissions through demand side reduction. There's also a high dependency on smart appliances that will require something akin to the rewiring of the gas grid for natural gas or switch over of refrigerators high in CFCs¹⁰⁷ in the 1990's to reap real social and climate benefits for all.

WHO OWNS OUR ENERGY?

One of the arguments in support of fracking is the development of a home grown gas supply for energy security. As North Sea oil and gas tails off, it's said that we will increasingly rely on imported gas, particularly from countries such as Qatar with poor human rights records. However whilst unions have generally supported renationalising energy and this remains popular with the general public, little more is being asserted about ownership of these new energy generators.

Caudrilla – a Greenpeace investigation found that Caudrilla is majority owned by entities in offshore tax havens such as Bermuda.

Third energy – wholly owned by Barclays Bank, formerly the object of a boycott by anti-apartheid campaigners,

and runs its business under the name of Third Energy Holdings which is registered in the Cayman Islands.

Ineos – hoping to pressure the Scottish government to support fracking, is well known for moving its operations to Switzerland in 2010 to avoid taxes.

New nuclear will now be run by the Chinese government and French part state owned EDF. China is also investing heavily in North Sea operations. There is lots of noise about Chinese threats to national security but curiously little about China's human rights records – the biggest user of the death penalty.

Although the UK Government doesn't seem to have a problem with state-owned energy as long as it isn't the UK state. Dong energy, majority owned by the Danish government, is playing a big role in developing UK offshore wind energy, and was given the go-ahead in 2016 to develop the largest offshore wind farm in Europe.¹⁰⁸

WHERE NEXT?

The issue of conflicting energy policy is only one part of the picture. Corporations have no interest in making a big shift to renewables investment. Even if they came down in price the profit incentive isn't there. In interesting parallels with Malm's theory around the rise of coal a few centuries ago, the same could be argued are at the heart of why renewable technology is just an unattractive to capital today.

Other energy saving measures such as retrofitting also lack incentives for Corporations when they have big profit mouths to feed.

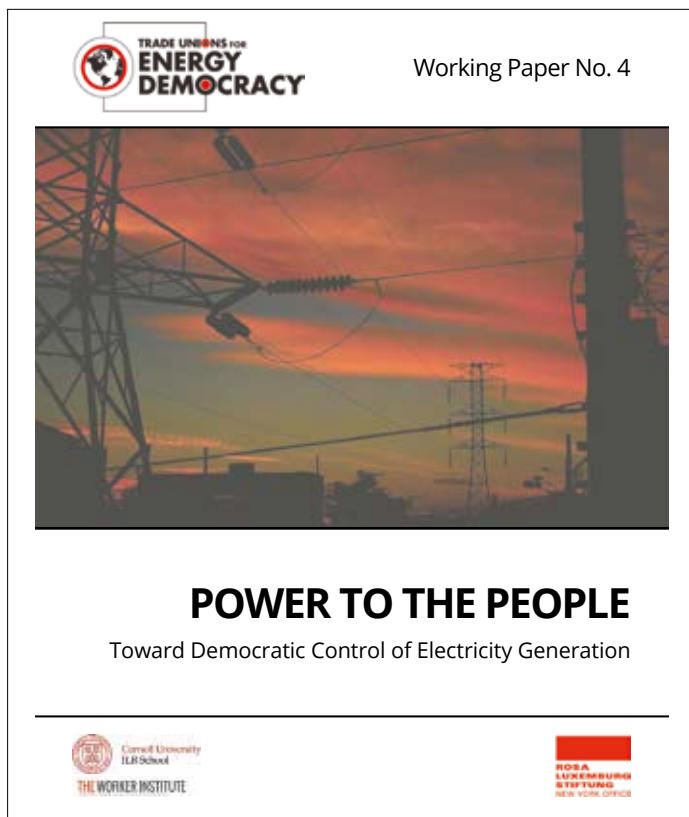
For this reason, the only way an energy transition will happen is to take back ownership and control of our energy system.

4. RECLAIM, RESIST, RESTRUCTURE – ENERGY DEMOCRACY¹⁰⁹

PCS is advocating that to meet the UK climate targets as part of the Paris global commitment, we need an energy transition to a zero carbon economy based on public ownership and democratic control of our energy system. A system of energy democracy that will underwrite a just transition for workers and communities across all sectors of the economy and re-vision our public services.

As part of the global Trade Unions for Energy Democracy (TUED) initiative, PCS supports its founding principles that we need to reclaim, resist, and restructure our energy system. This means an end to corporate ownership and control, eradicating fuel poverty, 100% renewable energy and unionised jobs with workers paid living wages.

What do we mean by energy democracy, and why do we believe this is fundamental as a response to the climate crisis in both the scale of energy transition needed and the time-frames required?



ISSUES OF OWNERSHIP AND CONTROL

Energy is not just a fuel source but a glue that binds us nationally and globally. It defines our social relations through which we play out the inequalities of justice

“To incentivise private capital for fossil fuel extraction, the public pays a subsidy either direct or through tax reductions to companies”

as “people and places unevenly experience the costs and benefit of energy extraction, generation, financing, distribution and consumption.”¹¹⁰ This is key to understanding why fixing our energy system, will also help fix inequality and fix our climate. What makes or doesn’t make this happen however lies in resolving issues of ownership and control.

Ownership is an interesting and complex question in the UK. Individuals are encouraged to own property – bricks and mortar – on land owned by someone else. Wages and occupational pensions are mostly held in private institutions for them to play with on the global financial markets. When we retire, for many our income depends on how well our assets were traded. Our transport services are owned by corporations but the ‘public’ largely own the infrastructure i.e. the rail and tracks. Natural assets such as energy sources e.g. coal, oil and gas, and water supply are extracted and transmitted by networks all owned by private companies. But if something goes wrong, like the financial crash, the public own the cost. This has become popularised in the slogan privatised profits; socialised risks.

The Petroleum Act 1998 confers ownership rights to all sub-surface hydrocarbons such as shale or North Sea oil and gas to ‘The Crown’. Until the Infrastructure Act 2015, landowners – including public landlords such as local authorities – owned the land beneath to the earth’s core. Under the act, this right has now gone and companies once having acquired a licence and planning permission can drill pretty much where they like.¹¹¹

To incentivise private capital for fossil fuel extraction, the public pays a subsidy either direct or through tax reductions to companies. And as illustrated in the last section, the UK pays the highest subsidies in the world to oil, gas and even coal companies despite government being part of the G7 pledge to phase these out by 2025.¹¹²

Control is another complex issue. The government through its various departments award licences for extraction through a competitive tendering process. In the example of shale gas, the government announces a

“licensing round” and the bidder makes their applications to exploit part of the country. Identifying hydrocarbon resources is done by commissioning organisations such as the British Geological Survey (BGS) to research and provide maps across the UK land mass. The BGS is a public body and forms part of the Natural Environment Research Council (NERC).

The Coal Authority licences coal and manages past coal mining affects, particularly in relation to issues such as subsidence that are not the responsibility of the licensed mine owner.¹¹³ Regulation, health and safety and monitoring of all energy sectors is carried out across a swathe of central and local government departments/bodies.

The Crown Estate¹¹⁴ also has a role to play. Their permission is required for rights to lay, maintain and operate cables and pipes on the seabed for which they are the landlord, and should be “informed of cables and pipelines that transit the UK continental shelf.”¹¹⁵

Through the planning processes, the public may be consulted about applications to extract fossil fuels but as we’ve seen in the case of fracking in Lancashire, these can soon be overridden by central government if it’s deemed in the national interest to do so. But who is the national in national interest?

The occupants of the well heeled streets of Highgate or the mansions of ‘Billionaire Row’ in Hampstead North London. Yes, but more importantly corporations are the national interest; not the de-industrialised Midlands or Northern towns, the low income families of Cornwall or the million or so people that form the queues to the foodbanks who have to take pre-cooked food because they cannot afford to heat it.

Today as energy flows across national grid networks whose ownership has been transferred by government to private capital, the only role citizens have in their energy system is to consume it, if they can afford it, and the possibility of complaint to an energy company if they have a grievance with the supplier. And most likely that worker will be a low paid call centre worker and just as alienated from the energy system as the rest of the public.

As we saw earlier, our energy system is designed to meet the needs of the market and private profit. So the only way we will change it and the fuel source going into it, will be to reclaim ownership and in doing this, restructure the relationship between central and local government, workers and communities to exercise democratic control.

“68% of people say energy companies should be run in the public sector”

ENERGY IN OUR HANDS – PUBLIC OWNERSHIP AND CONTROL

Energy democracy – public ownership and democratic control – is not just an idea whose time has come, it’s a fundamental right that was taken away as the energy sector was privatised and consumers became beholden to the Big Six.¹¹⁶ Some have argued that one answer is to break up the Big Six by separating the generation and supply of energy or vertical integration of companies.¹¹⁷ In reality this would be a marginal gain if at all and not confronting the real issue of capital versus social monopolies.

Community energy and cooperatives are posited as an example of regaining control. With some success in Germany and Denmark there are certainly models to learn from.¹¹⁸ However often these will be small scale, suit certain types of environment, and mostly those with some initial wealth to pool to make them happen.

Therefore whilst there is an important place for different models of energy generation and certainly in rural areas this may make more sense, to address the scale needed including to run our public services of schools, hospitals and transport, the focus for PCS is on the need to remunicipalise our energy system as part of a worker-public partnership.

THE AGE OF MUNICIPAL PUBLICLY OWNED ENERGY

Public ownership of energy is popular. In fact so popular the Labour Party won a landslide victory in 1945 on Clement Attlee’s radical agenda of public ownership of fuel and power, inland transport, iron and steel... “socialised industries, taken over on a basis of fair compensation, to be conducted efficiently in the interests of consumers, coupled with proper status and conditions for the workers employed in them.”¹¹⁹

A YouGov poll showed 68% of people say energy companies should be run in the public sector.¹²⁰ This carries across the political divides and after an era of privatisation based on a political mantra of private means better. Since gas and electricity were privatised from the 1980’s energy prices have seen significant price increases

for consumers with real terms hikes of 75% for domestic electricity and 125% for gas over the period 2002 to 2014,¹²¹ as well as a myriad of confusing tariffs, and increased fuel poverty.¹²²

A shift to municipal energy is already happening. Nottingham City council set up Robin Hood Energy in 2015.¹²³ The UK's first local authority owned energy supply company offers lower tariffs than the Big Six on a not for profit basis. Energy is currently sourced from its own incinerator, solar panels and food waste along with gas and electricity bought on the market. However the long-term aim is to source entirely from renewable energy.

Leeds City Council have partnered with Robin Hood Energy to establish White Rose Energy – a not-for-profit company that has a focus on providing affordable energy and tackling fuel poverty.

Bristol Energy set up in early 2016, is like Nottingham wholly owned by the City Council on a not-for-profit basis. They are also going beyond a standard business model with wider social and economic aims such as tackling fuel poverty and promoting renewable energy generation.

Pressure from the London energy democracy campaign Switched on London (SoL), supported by trade unions including PCS and anti-poverty groups is paying results. The London Mayor, Sadiq Khan has committed to a municipal energy company – Energy for Londoners – which would be by far the biggest and challenging yet. However the campaign demands are rooted in wider calls for social ownership and control with unionised workers paid living wages and representation for workers and the public alike on Boards. This is along with aims to address issues of fuel poverty and support for home insulation programmes.

Scotland has been developing its own energy democracy programmes through Our Power, a community benefit society owned by a number of local authorities and

“Transmission and distribution companies would be brought back into the public sector with new legislation brought forward to enable the creation of regional and local supply companies”

housing associations. It aims to supply 30% of its energy from renewable sources and equally tackle fuel poverty with a focus on social housing tenants.

The Greater Manchester Combined Authority (GMCA) made up of ten councils¹²⁴ is also looking at establishing a publicly owned municipal energy company. There is also a network of local authorities uniting on this issue and some UK local authorities are part of a European Association of local authorities¹²⁵ which are exploring similar themes including energy transition plans. An important part of the European initiative is looking at how annual budget setting is linked to a longer term energy transition plan.

IS IT FINANCIALLY FEASIBLE TO TAKE BACK POWER?

According to research done by David Hall of the Public Services International Research Unit (PSIRU) the answer is yes. A paper produced in April 2016: Public ownership of the UK energy system – benefits, costs and processes,¹²⁶ sets out that this is not only necessary for the development of renewable energy but possible in terms of costs.

Hall says that a new public energy system should include three key elements:

1. Public ownership of the natural monopolies of the transmission and distribution grids
2. Regional or local public sector bodies responsible for expanding renewable energy generation, and maintenance of other generating capacity
3. Establishment of public sector suppliers of electricity and gas available to all consumers.

The paper sets out a clear framework for the public sector role in this energy transition which PCS supports and builds upon in section six.

Principally this concerns the development of policy, information and regulatory functions along with ownership and management of the national grid; creation of new regional and public sector bodies in relation to ownership and management of distribution grids, renewable generation (and non-renewables during transition process) and customer supply.

Transmission and distribution companies would be brought back into the public sector with new legislation brought forward to enable the creation of regional and local supply companies.

UK energy: a plan for public ownership



Process	Current system	Let's own it	New system
Generation Fossil fuels & nuclear	Private 	<i>We buy some of it</i>	New public companies (national / regional / local) & some private
Renewables	Private & coops 	<i>Encourage investment in low carbon energy</i>	Regional & local public companies, coops, community groups & a few private
Transmission	Private - National Grid 	<i>We buy it</i>	National public ownership
Distribution	Private 	<i>We buy it</i>	Regional & local public ownership
Supply to users	Private & a few not-for-profits Dominated by The Big Six: British Gas, EDF, E:ON, Npower, Scottish Power, and SSE 	<i>Create new public companies</i> 	Regional & local public providers, coops & small-scale private compete with the Big Six
Regulation	Regulation of private providers by Ofgem	<i>New structures give us a real say</i> 	Democratic & accountable providers

Based on Prof. David Hall's 2016 report "Public ownership of UK energy system - benefits, costs and processes". www.weownit.org.uk/energy

“The failure of our energy system isn’t just a market failure however, it’s ideological and what contributes to the same failure to take concrete and urgent action on climate change”

The cost element relates to compensation to owners of companies which are brought into public ownership and UK rules on this. There are of course arguments these should be appropriated at no cost to the tax payer as resources were appropriated from ‘us’ in the first place, or at best compensation only paid on the basis of proven need. That is beyond the scope of this pamphlet but to note, according to the current capitalist rules of ownership and compensation, Hall’s research shows compensation estimates of £185 billion to do this are greatly exaggerated and “a more realistic estimate” is around £24bn.

The We Own It¹²⁷ campaign for public ownership has summarised Hall’s ideas in the infographic on page 24.

A SOCIAL FAILURE NOT JUST A MARKET FAILURE

As we have seen, energy costs have risen dramatically for consumers since privatisation. Issues of affordability have

now become an important social concern among poverty campaigners and trade unions alike. Despite this, calls for a fairer playing field in the energy market are largely ignored as investigations by the Competition and Markets Authority (CMA) have resulted in barely little change to the charging practices of the Big Six.¹²⁸

The failure of our energy system isn’t just a market failure however, it’s ideological and what contributes to the same failure to take concrete and urgent action on climate change. Ultimately it’s a failure for workers too. Falling oil prices may be the cover for job losses in the North Sea and related sectors now, but increasingly these will result from an energy transition away from fossil fuels. What won’t happen is a transition that’s just and transformative for workers and communities. That is unless we resist the market ‘there is no alternative’ narrative, fight to reclaim our energy system and restructure it under new forms of public ownership and democratic control.

5. A JUST AND TRANSFORMATIVE ENERGY TRANSITION FOR WORKERS AND COMMUNITIES

Transitions have happened throughout history as technology and energy has evolved. The UK, once seen as the workshop or ‘chimney’ of the world has passed this mantle to China. In a globalised division of labour, the UK has long since offshored its manufacturing industry along with associated carbon emissions. Instead we’ve moved to a service economy, dependent on manufactured imports which itself depends on cheap transport costs.

But these were not seamless transitions to a new economy. Adjustment was made through class conflict and the attacks on former strongholds of organised labour, seen as a constraint to the free and liberalised market. It is no surprise now that one of the remaining bastions of unionisation – the public sector – is being systematically broken up and privatised.

For a salutary lesson in transitions we need look no further than the miners dispute of the 1980’s and 90’s which rightfully remains a potent symbol of class struggle for many trade unionists. An attack by the political elite on collective organised labour to impose capitalist interests, it has since been described as the “most dramatic contemporary example of social transformation in Britain since the Second World War.”¹²⁹

In 1998, the Coalfields Task Force commissioned by the Labour Party a year earlier to look into the consequences of the coal fields closures reported that the pace and intensity of decline in the coalfields had left a “legacy of high unemployment, social deprivation and environmental degradation”.¹³⁰ With over 250,000 jobs in the mining communities lost it showed how unjust this transition was leaving a very visible symbol of social abandonment.

This reality is still being lived by those communities as well as many others on the blunt end of de-industrialisation policies such as in the steel industry. Arguably it is something we are also starting to see in the emergence of the ‘gig’ economy and transformation of the services sector as digitalisation and automation increase and ‘on demand platforms’ create space for a new online market of individual buyers and sellers.¹³¹

Today climate science calls for an urgent energy transition if we are to avoid the catastrophic climate tipping points we are already teetering on the edge of. However we need to resolve the nexus of ‘jobs versus environment’ and ensure a transition based on justice if we are to address

the legitimate fears of workers that they will again be left to pay a disproportionate price.

As fossil fuels are phased out, millions of workers will need to be found new jobs. Many in energy generation will have transferable skills which will need to be “skills matched” into new renewable energy jobs. Others working on energy transmission will be needed to reconfigure our piping and networks while more will be needed to retrain and acquire skills for the distribution and supply side for the new renewable energy economy.

For those who fail to grasp the immediacy and scale of the task before us, or those who have an interest in protecting the political and economic status quo, this will be dismissed either as utopian or an immediate threat to workers in energy intensive industries or the energy sector more broadly.

“It is no surprise now that one of the remaining bastions of unionisation – the public sector – is being systematically broken up and privatised”

However as the One Million Climate Jobs pamphlet argues, with the right investment and political will, workers can be put to work building wind turbines, retrofitting and insulating our homes and public buildings, creating an integrated transport network run on renewable energy. As outlined in the previous section, energy democracy provides the foundation upon which to carry forward this transformation.

JUST TRANSITION

The principles of the term just transition are arguably rooted in the resettlement of Veterans programmes in the United States after the Second World War.¹³² The Servicemen’s Readjustment Act (1944) or GI Bill, provided for men and women facing unemployment after the war. This included education, housing and unemployment insurance. It wasn’t until the early 1980’s however that the term just transition began to identify with work and the environment.

Tony Mazzocchi, a labour leader in the Oil, Chemical and Atomic Workers International Union (OCAW) was one of the few in the trade union movement even now to recognise the link between the protections of workers and the protections of the environment, including its impact



on communities. Aligned with environmentalists to end harmful practices in the chemicals and atomic industries, he recognised this would impact on jobs and fought for a “Superfund” as an income and benefit guarantee for workers. A conflicting term with pay-outs to clean up hazardous waste, it later became dubbed “just transition” embodying the principle of equity where the costs of transition are shared across society.¹³³

In the global trade union movement the phrase has now become commonly understood to mean social protection for workers’ and communities livelihoods; retraining and reskilling; collective bargaining, consultation and social dialogue.¹³⁴ It has been the union lobbying cry since the Copenhagen climate talks in 2009 and for the first time gained recognition in a UN climate agreement in Paris in 2015.

But if you’re a worker on a North Sea oil rig facing job cuts it probably doesn’t mean a lot right now. If you’re a senior union official who represents workers in the energy or energy intensive industries, you might agree with it but argue we can’t make such fundamental shifts in our energy system to meet climate change targets because it risks large scale jobs losses. This has left mainly the industrial and energy trade unions stuck in the binary arguments of jobs versus environment similar to the ‘sunsetting’ of jobs in the chemicals industry decades ago.

There are many reasons why trade unions, including individual trade union leaders, take the positions they do. This is as true in the UK as it is elsewhere in the world of which the stand-off on the Dakota access pipeline and position of the AFL-CIO union in the US is one good example.¹³⁵

It’s not the job of this pamphlet however to comment on those per se. The aim here is to move the debate forward and to begin to understand what a just transition for

public sector workers based on energy democracy may look like to enable us to start taking the practical steps to achieve this. The first point then is to affirm that for PCS, a just transition is not only a set of demands for a protective floor for workers, their families and communities. This is needed, but as highlighted throughout, we will only achieve an energy transition by ending the capitalist basis of the energy system and the inequality and injustices that go hand-in-hand with it.

FROM A JUST TO A TRANSFORMATIONAL TRANSITION

It’s been highlighted above what the principle of a just transition is. In more detail this is largely understood in the International and European trade union movement as:

- Greener jobs – sustainable, decent work and terms and conditions
- Worker representation and consultation
- Social protections – income support, re-training and redeployment opportunities, pension security for older workers, and help for communities to adapt to climate change
- Support for innovation and technology sharing to enable a rapid transformation of energy and manufacturing opportunities
- Fair distribution of costs and recognition of social and human rights
- Social dialogue with all relevant parties including collective bargaining with workers and unions for workplace change.

A Just Transition was a ‘topline’ priority for the trade union movement led by the International Trade Union Confederation (ITUC) at the UN climate talks in Paris, and is recognised in the Preamble to the agreement by way of the following text:

“Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.”¹³⁶

This is a welcome inclusion but means nothing without action by trade unions and others involved in labour issues such as those working for social justice to make it happen. The protectionist transition approach provides a route to start making some of these demands. For example in extractive industries faced with a finite and high carbon resource such as coal or oil, reskilling or retraining programmes can be built into collective bargaining.

In the US three Senators including Bernie Sanders sought something on these lines by way of The Clean Energy Worker Just Transition Act¹³⁷ entered into the Senate in December 2015. In summary it gives recognition to the attack on workers through unfettered free-trade policies, decline of manufacturing and need to move to clean energy, and the “national responsibility to protect the livelihoods of the working families and communities who have helped power and build” the US. Specifically it calls for new good jobs with “family-sustaining wages” that provide health care, ensure retirement benefits are safe and give workers a “powerful” voice. It also states those jobs must be created in impacted communities and to be funded by closing the tax loophole.

The Scottish Government has also given some recognition to the decline of these industries. It has introduced a Transition Training Fund¹³⁸ for retraining and reskilling former workers in North Sea oil and gas or supply chain activities. And even the UK government, not known for worker protection, have introduced the idea of a reskilling programme advocating transferable skills – into fracking!¹³⁹

At one level this makes common sense for all governments when keeping an eye on the welfare bill, and even reluctant market interventionists such as the Tory government realise that a) they will need workers in renewables to meet the minimum of targets under the Climate Change Act 2008 and b) they will need some skilled workers to assist in their pursuit of a home shale industry.

But a social protections approach, whilst needed, does nothing to change the balance of power between workers, the public and the owners of energy, and the state. For PCS therefore we advocate that a just transition is also a transformative process for economic and social justice, going beyond market based solutions and negotiation within a framework of green capitalism.

In the transformative scenario a just transition will:

- Address the inherent inequality and injustice of the capitalist system
- Create climate jobs that lower greenhouse gas emissions, are unionised, and pay a living wage



- Socialise ownership and democratise productive processes and energy generation as part of a wider transition to different forms of energy production
- Put workers and their communities at its heart based on social needs including in domestic and health care sectors
- Rebuild the strength of organised labour and redefine the relationship between labour and nature.

The global one million climate jobs campaign led by trade unions is an attempt to start this transition by creating jobs that lower greenhouse gas emissions. In the UK through the creation of a National Climate Service – akin to

the NHS – the government would oversee a transitional programme building the wind turbines needed for renewable energy; retrofitting and insulating homes and buildings to make them more fuel efficient; invest in an integrated public transport network run on clean fuel; provide workers with the training and skills needed for a zero carbon economy.

The National Union of Metal Workers in South Africa (NUMSA) have developed a concept of a transformative transition based around energy democracy arguments. They take issue with a seemingly uncontested “anything but fossil fuels” argument that has emerged within the climate movement and trade unions, and lack of political analysis. For them their call is to “stop the Green Capitalist Grab” and “build a socially-owned renewable energy sector as a component of a publicly-owned and democratically controlled energy system.”¹⁴⁰

The complexities of energy in South Africa are different to the UK but NUMSA’s objections to renewable energy proposals are grounded in challenging market based ideology – the pure business case - and addressing issues of social justice. Assurances of private sector risk are unmasked as the state will be left to pick up the costs if renewables goes wrong. More tellingly, the energy generated would be transmitted via a central grid whereas the majority of fuel poor cannot access the grid. Therefore undermining the power to develop decentralised energy systems and address social energy needs as part of the transition.

The importance of the NUMSA example is in showing the level of scrutiny we need in the policy aims we call for in the energy transition. It also shows that we

cannot act alone but must refine a transition within a global perspective. Not least as the UK has a particular responsibility with its colonial past to ensure it doesn't replicate this in a new renewables colonialism.¹⁴¹

As we have seen, political philosophy constrains our ability to make the changes we need to confront climate change as they are rooted in market mechanisms and the profit motive. Therefore a safety net for workers and communities in transition is essential but the only just transition will be a transformational one rooted in collective solidarity and action to confront inequality and injustice.

WHO IS A JUST TRANSITION FOR?

Every worker and community has a stake in the energy transition but it will inevitably impact different groups of workers more or less severely, and by consequence their communities.

The UNFCCC identify four ways in which employment will be effected:

1. Job creation
2. Job substitution
3. Job elimination
4. Job transformation and redefinition

According to the industry body Energy UK¹⁴² representing both energy generators and suppliers, over 637,000 people depend on the energy sector for employment. These include renewable energy which the trade association Renewables UK says employs over 270,000 in the sector. The Energy Networks Association¹⁴³ which covers companies in transmission and distribution operations e.g. National Grid say their members employ over 28,000 people directly. Meanwhile Dukes report 2015¹⁴⁴ says that 159,000 are directly employed in producing, transforming and supplying energy to all sectors. Finally the oil and gas Industry cite around 300,000 direct, indirect and induced jobs supported by oil and gas production.

Whilst it's hard to get precise figures, and certainly some here will be double counted across the various bodies mentioned above, this does help to illustrate some of the numbers involved. Relative to overall private sector employment of around 26.3 million, this may seem a small number but energy contributes to all work.

This compares to 5.442 million employed in the public sector including in education, NHS, police forces, administration, local and central government. Of this,

just under 3 million are in central government roles and includes 416,000 people working in the civil service and non Departmental public bodies (NDPBs). A further 312,000 work in UK public Corporations such as the Driver and Vehicle Standards Agency (DVSA). Local government employs over 2 million workers.

Since the Coalition Government of 2010-15 and Conservative Government since 2015, there has been a growth in central government jobs and declining local government. This reflects changes largely under education where the Schools Academisation programme has seen a transfer of responsibility from local to central government.

Further Education colleges and the Royal Mail have been reclassified into the private sector in 2012 and 2013 respectively.

Most discussion to date has largely focussed on those workers literally at the coal face of the fossil fuel industries. Understandable given this is where the greatest shift in workers will need to happen in the zero carbon transition but energy as pointed out in Section Four is the glue for all our lives and the majority of employment is outside of directly energy related work.

Therefore every sector of the economy will be affected by the energy transition – energy, manufacturing, heavy industries like steel, transport, construction, health, education and so on. All these sectors have high levels of union membership therefore every union has a stake in the transition and to put the case for its workers. This is no different for public sector workers.

In this pamphlet we are mainly concerned with public sector workers in central government with responsibility for the energy governance framework: regulation, monitoring, licensing, policy making, and revenue funding. Other unions are organising in local government, and only touch on it here where there are direct crossovers as part of a wider re-visioning of our public services and the institutions essential to it in building an energy democracy transition.

Other parts of the public sector such as education, health, the fire and rescue services are important in ensuring sustainability and climate change are embedded in learning, or understood in their roles as emergency 'first' responders on the frontline of climate change impacts. Whilst they fall outside the scope of this pamphlet, we hope this it will serve as a platform to unify all unions in working towards a common agenda of demands for a just and transformative transition.

6. A JUST TRANSITION FOR THE CIVIL SERVICE: A WORKER-PUBLIC PARTNERSHIP FOR ENERGY DEMOCRACY

“A strong and vibrant civil service has a key role to play, not only in the delivery of public services, but also in changing them.”¹⁴⁵

Public administration has played a lesser or greater role in energy policy depending on the prevailing ideology of the day. This does not necessarily reflect party politics as they too have shifted leftwards or rightwards according to wider political economic philosophy. For example the postwar welfare state consensus and more recent collusions on dismantling the welfare state across mainstream parties. But what is consistent, is the market based acceptance of them all.

When it comes to energy, there is little difference as we see mainstream parties of the left globally struggling to confront a capital agenda of marketised public services and high energy profits, with the collective action needed on climate change. In the UK we can trace where we are to some extent by looking at the historical pattern of government departments as an indicator of the importance given to energy, industry, employment, climate change etc. in different parliaments.¹⁴⁶

“Trade unions, workers and their communities need to start setting the agenda for a just and transformative transition now”

One of the first acts of the Theresa May Government in July 2016 was to abolish the Department for Energy and Climate Change and create a new Department for Business, Energy and Industrial Strategy (BEIS) in its place. There is still a ministerial brief for climate change but the fact these two words are missing from the departmental title and rarely feature in statements from the BEIS Secretary of State suggests it has been relegated to the lower leagues compared to the premiership status of industrial strategy.

CLIMATE CHANGE ACT 2008

In 2005, cross party support in the House of Commons from Labour, Conservative and Liberal Democrat MPs saw the first proposal for a Climate Bill which became law through the Climate Change Act in 2008¹⁴⁷. The Act is arguably the single piece of legislation to which all focus

should be made in deciding how government is organised and policy formulated. At its time it was globally ground breaking, being the first national legislation in the world to set a regulatory framework for reducing greenhouse gas emissions.

Specifically it set a target to reduce emissions by 80% by 2050, and established the Committee on Climate Change (CCC) among other elements. At time of writing the Government has given assurances the Climate Act is not under threat but we don't have time to sit on the side lines and watch how this Tory tale will end. Trade unions, workers and their communities need to start setting the agenda for a just and transformative transition now.

A key part of that is mapping out a plan to re-vision our public services within a broad worker-public partnership including the institutions of public ownership and democratic control. Building on the one million climate jobs initiative and an energy democracy transition, below is a vision of what a people centred 'reformed' civil service¹⁴⁸ could look like working in the interests of the planet, and the alternative vision for the civil service articulated by PCS over a decade ago.¹⁴⁹

This is not intended as a blueprint but ideas to be developed and debated, as part of challenging the economic orthodoxy of governments and financial institutions by:

- Questioning the claims that cost-cutting means greater efficiency
- Arguing that civil and public services are vital to the economic, political and social well-being of the nation
- Arguing for public ownership and control over all aspects of service delivery in the civil and public services
- Making the case for accountable public services with staff involved through their trade unions building public services for the future, including in the energy transition.

A NATIONAL CLIMATE SERVICE

A key element of the One Million Climate Jobs campaign is the creation of a National Climate Service (NCS) similar to the National Health Service (NHS) set up after the Second World War to ensure there is a body to create the jobs needed to lower greenhouse gas emissions. As we have seen, leaving the market to solve the climate crisis is a contradiction and raising greenhouse gas emissions, not cutting them. PCS advocates that a NCS is the critical start point to a just and transformative transition to zero carbon energy.

“Just as the ‘trickle down’ affect was a myth of globalisation, so tackling climate change won’t happen by osmosis when squeezed into policies or departmental briefs”

The Paris agreement may yet prove to be a game changer but just as the ‘trickle down’ affect was a myth of globalisation, so tackling climate change won’t happen by osmosis when squeezed into policies or departmental briefs. Therefore the National Climate Service will be the overarching umbrella under which sits the collective parts needed to coordinate the path to a zero carbon energy based on public ownership, energy democracy and a just and transformative transition for workers and communities.

A critical department will be a properly resourced ‘Ministry for Climate Change’ (MforCC) that can oversee an energy democracy transition to a zero carbon economy.

As David Hall noted in his paper on public ownership of the UK energy system¹⁵⁰ “two elements of the system are natural fits for central government: the policy and information functions of the regulator; and the ownership and management of the transmission grid.” Hall further envisages the establishment of “new regional and local public sector bodies, accountable to elected councillors, and subject to strong transparency requirements” which will manage the distribution grids, generation and supply of renewable energy to customers, including non-renewables as the energy mix transitions to 100% renewable energy.

The MforCC will ensure the right governance policies and bodies are in place to oversee a transition to a publicly owned and democratically controlled energy system which recognises the rights of citizens within an energy ‘commons’.

COMMISSION FOR DEMOCRATIC CONTROL OF THE ENERGY SYSTEM

Workers and communities will form the basis of a democratically controlled energy transition. Whilst a body for centralised planning is needed such as a Ministry for Climate Change, the Commission will ensure a worker-public partnership for a publicly owned energy system

working in the interest of a people service not just a government run public service.

Building on a public service ethos of ownership and control by people for people, this central body will help to oversee through new local authority structures, the establishment of community ‘assemblies’ filled by workers and communities representatives alike as a foundation for democratic control of the energy system.

It would also ensure that rights of workers are upheld including new statutory rights for workplace environmental reps (WERs) that will have a key role in aiding the energy transition. This will include collective bargaining that is more than consultation exercises in the interest of corporations but instrumental in establishing the framework for worker participation in democratic control of the energy system.

COMMON ‘CLIMATE’ TREASURY FOR ALL¹⁵¹

A reformed Treasury will be instrumental in climate valuation of policy and investments. As the current Treasury oversees all parts of government spending, so we need a climate treasury to measure all policy and decisions against a golden rule of the carbon budget. This will ensure that every action will be a step on the path to reaching zero carbon within the timeframes of climate science.¹⁵²

This is not a trading game of emissions offsets such as established in the aviation industry. Instead as part of the NCS, trained climate ‘accountants’ would be properly assessing the climate impacts of policy decisions such as the Heathrow Third runway. In the climate treasury, airport expansion on the basis of Heathrow would not be agreed but efforts put into building an integrated transport system based on public provision and renewable energy.

It’s also important wider industrial policy is included so that carbon offsets on other parts of the world are also taken into account. For example in establishing a wind energy industry, the Treasury will take account how imported goods are produced and their associated transport carbon costs.

Do goods have a social need? The Treasury will be a driver of social production for emissions reduction and real clean energy generation. The annual budget showcase will move from one of austerity and unsustainable economic growth targets to one of social growth with emissions reductions targets across all sectors of the economy.

CLIMATE EQUALITY COMMISSION

Energy, along with housing, food, transport and education are not luxury goods, they should be common for all to enjoy as part of a decent and dignified life that is not dependent on financial wealth. As well as being climate proofed decisions will be equality proofed which goes beyond the current public sector equality duty.¹⁵³

The Equality Commission will ensure the participation of all groups in decision making on energy projects and that no initiative has an adverse effect on a particular group in society. Along with environment and climate budget impact assessments, all policy will be reviewed for its potential impact on particularly low income and marginalised groups.

This unit will ensure the end of fuel poverty and work through the newly created local public bodies with local community assemblies to develop a programme of retrofit and insulation of homes. These will need to be defined in relation to new local authority structures including issues of elected representation and participation of local citizens and workers.

Areas of adaptation will be identified and equality proofed to ensure no one is further disadvantaged due to measures adopted. For example, disabled people should not face more social barriers to their participation in society due to the effects of climate change but be actively engaged and participating in solutions. Similarly low income groups, and particularly those from BAME communities, should not be put at any disadvantage in the transition to a zero energy economy for example in the establishment of local distribution networks or citing of energy generation projects.

This body will also work closely with all parts of the NCS to coordinate measures to eliminate structural inequality of pay and benefits, or poor housing that contribute to fuel poverty, and which most commonly impacts the disabled, elderly and women.

MINISTRY FOR CLIMATE JOBS, SKILLS AND SOCIAL PROTECTION

If workers and communities are to have faith in an alternative and demand an energy transition, they need to be convinced they will not be socially and economically abandoned in the process. A key role of a government department on climate jobs, skills and social protection will be to ensure that everyone who loses a job in fossil fuels (direct, indirect or induced) will get another one in the new zero energy economy.

As pointed out by the Institute of Public Policy in their report *The Future's Green: Jobs and the UK low carbon transition in 2009* employers are not the best placed to forecast future skills needs:

"An employer led skills system is not sufficient in the context of the transition to a low carbon economy: there is a need for government to play a more active role in setting the direction...ensuring that a central agency, such as the UK Commission for Employment and Skills, has oversight of emerging and future skills needs and is responsible for making sure these are reflected in the commissioning process for workplace training..."¹⁵⁴

This is particularly true when led by the interests of capital. In the energy transition 'employment colleges' will be created because they are needed and funded by Government as part of a zero energy democracy transition plan; not cancelled as in the case of the National College for wind energy giving priority to shale gas despite recognised skills shortages in renewable energy.¹⁵⁵

"A key role of a government department on climate jobs, skills and social protection will be to ensure that everyone who loses a job in fossil fuels will get another one in the new zero energy economy"

The previous section showed some jobs will go all together, some will be substituted in direct like for like employment, some may need to be transformed and redefined, whilst new jobs will be created. Clearly jobs in fossil fuel extraction will disappear in the long term. For example an engineer working on an oil rig or floating production, storage and offloading (FPSO) vessel to process oil and gas from nearby wells on the seabed will become an engineer working in offshore wind or tidal energy. Electricians from the oil and gas industry will see jobs transformed into electricians in renewable power generation and distribution systems, including the installation of solar panels on homes and public buildings. Making our homes and public buildings more energy efficient will require thousands of workers trained in insulation and retrofitting.

As old fossil fuel based industries are phased out there will need to be a process of identifying and "skills



matching” into the new zero carbon economy. This will include highlighting existing skills gaps,¹⁵⁶ retraining, and developing a national education curriculum, and a further education and apprenticeship programme for climate jobs. This will be done working on a regional and devolved nation basis in coordination with new local authority structures and public engagement as part of the energy democracy transition.

The new public climate jobs will be redesigned in the process of transition to address issues of equal and low pay, ensure good terms and conditions, are unionised and break down employment barriers for disabled people. A public climate jobs programme will be run in close coordination with the climate equality unit and the new local authority structures.

Finally a range of employment protections will be ensured during the transition linked to the identified needs of workers and communities so none are left in detriment of income or negative impact on pensions as well as an apprenticeship programme at end.

NATIONAL CLIMATE INVESTMENT AND REVENUE ‘BANK’

The privatisation of the Green Investment Bank is another example of the market failure to tackle climate change. Whilst seen as a rare success of the Tory led coalition government (2010-2015) in attracting investment to renewables projects, its highly contested sale has threatened the continuation of existing projects and again exposed the Tory commitment on climate change.¹⁵⁷

However the driver for the current Green Investment Bank is aimed at investors seeking financial returns along with

green returns. PCS believe this should be replaced by a National Climate Investment and Revenue bank that will invest in social returns based on achieving zero carbon energy and a just transition.

As part of the NCS, a new national climate bank will work with community assemblies to oversee the financial resource investment needed to both transition and then sustain the zero carbon economy as well as supporting adaptation measures. It will also oversee the physical architecture of the transition such as funding research and development for a revived decarbonised steel industry to support building of wind turbines; infrastructure for decentralised energy supply and distribution; public transport e.g. charging points, railways.

Banks were “too big to fail” in 2008, but there is no bailout for the publicly owned climate bank as we’ve already been doing insolvency with the planet for too long. The National Climate Bank will take account of community and municipal needs to agree the right energy project is financed according to people’s needs. It will also address issues of compensation¹⁵⁸ as energy is reclaimed back into the public sphere. Clearly there will be roles needed to understand the legal framework within UK law and elsewhere which may have a bearing. Future jobs will ensure the ongoing financial management of publicly owned companies, the supporting energy infrastructure, and new public service structures created to support them.

The NCS will ensure a robust system of tax collection as essential to the democratic functioning of government. Rather than becoming a tax haven on leaving the EU, the UK will be a haven for tax justice through an adequately resourced system of tax collection that puts an end to tax avoidance and evasion.¹⁵⁹ This includes an end to fossil fuel subsidies either direct or through reduced taxation measures. A properly resourced revenue and customs department as argued for by PCS¹⁶⁰ will ensure the funding for the energy democracy transition programme.

ALL JUST A PIPE DREAM?

We need a utopian vision because right now we’re looking climate dystopia in the face. But we do still have a chance to stave off the most catastrophic effects of climate change if we have the political will to do so.

In the fight to stop the Dakota Access Pipeline (DAP) in the US, clear lines of division emerged among the trade unions. On the one hand support based on the

creation of jobs; on the other opposition based on social destruction. Interestingly though the protestors were for jobs, just not the same pipeline jobs.

As one telling quote said: *“It is time for the unions to look in the mirror and ask “Which side are you on?”*

Pipelines for fossil fuel companies or pipelines for people? The indigenous groups and their supporters fighting the pipeline recognised there were plenty of jobs in pipelines as part of the existing infrastructure transporting water or sewage which need upgrading or repair. And the same goes in the UK as workers will be needed to rewire the energy system for renewables.

“Never again can we leave politics to the politicians”¹⁶¹

This is the conclusion of a workers inquiry by the Coventry, Liverpool, Newcastle and North Tyneside Trades Councils into state intervention in industry and seems a fitting place to end this section. A critique of Labour Party support whilst in office up to 1980, the inquiry illustrated how successive Labour governments have failed the working class.

PCS is not affiliated to the Labour Party but commends the decades of support from notable politicians in the Labour Party and others to the labour movement. But the general conclusion is one we agree with.

Those politicians have themselves lacked power. Therefore entrusting the future of workers as part of the energy transition to the current political structures of representation will neither ensure a transition happens or if it does, happen on workers terms.

“Our vision for an alternative will only remain a pipe dream if we don’t articulate and fight for it; politically, industrially and socially”

To steal another quote from the trade councils’ inquiry in 1980 Tony Benn said:

“the trade union movement in particular has to rethink its own vision of itself in much bolder terms, if it is to widen its appeal to those beyond its own ranks.”¹⁶²

Today we need boldness more than ever. Boldness to move beyond binary arguments of ‘jobs versus environment’ and build a movement for an energy democracy transition uniting trade unions, trades councils, community groups, social justice organisations, faith groups, the climate movement, our families and those who haven’t yet realised this matters to them.

Our vision for an alternative will only remain a pipe dream if we don’t articulate and fight for it; politically, industrially and socially. And we can do that, if we set out clear demands, make them central to our industrial, bargaining, and political agenda, and build democratic alliances in support of them. We can do that if we move beyond the jobs versus environment discussion, recognise that there is little room for negotiation with the physical world when it comes to climate, and face up to the challenge ahead of us.

7. CONCLUSIONS AND DEMANDS

As we entered into 2017, the UK was contemplating leaving the European Union and the world's largest economy, the United States, had elected a Corporate Reality TV show businessman – Donald Trump - as their President. Whilst these two political events left a mass of uncertainty for future environmental and climate change policy, the reality is we've made very little progress on tackling climate change in the preceding years.

Two facts alone stand out:

- 2016 – was the first full year the atmospheric concentration of CO2 stayed above the 400ppm milestone
- 2016 was the hottest year on record with a global average temperature of 1.2C above the long-term averages and meaning that 16 of the 17 warmest years on record happened since 2000.¹⁶³

We also know that these two political events reflected a deeper sense of abandonment among people by mainstream political institutions and parties. In the UK played out through austerity politics, dismantling of the welfare state and break-up of our public services, and a renewed attack on workers' rights and trade unions. And as with energy policy, all in a big nod towards capital and further away from serving workers and the public interest.

In this pamphlet we have tried to set out the problem faced, its historical origins, the failed politics to deal with it but overall, the need to remove capital from the driving seat of energy transition. Ultimately the transition will happen, if only because the fossil fuel resources will

run out (we reached peak oil in 1999/2000), the fracking boom will be just that, there'll be an ever diminishing "bang" for the carbon "buck", and smart companies and governments will progress the transition to renewables. Targets will be overshoot and it'll be an ever more divided resources world but we'll get there, if largely to the detriment of the many.

On the other hand, we can play out a different scenario. Whether we want to label it a new brass band of working class solidarity in line with the World Energy Council metaphors is another question but demanding a transition to a zero carbon economy based on energy democracy – public ownership and democratic control of our energy system – is the only way to ensure that the transition will be both just and transformative.

But this also won't happen without a well-resourced and trained public service capable of overseeing the energy transition, with the workforce central in negotiating change. It won't happen without breaking down the contradiction of fragmented and competing public services at the behest of the Treasury. And it won't happen without national planning that draws on the accumulated knowledge and experience of all in a worker-public partnership.

PCS, as a union representing workers in the public sector, believes we have a central role to play in shaping the governance framework for this transition. However, all unions have a stake as energy is the glue for all our lives at work, at home in our communities, and in global solidarity. Not for a renationalised and centralised bureaucracy but a public service that re-vision the relationships between central and local government, workers and communities.

OUR TEN DEMANDS

PCS believes to make the transition happen we need to demand:

- Worker involvement through their trade unions in building the public services of the future in a worker-public partnership based on social need and not private greed
- Statutory rights for workplace environmental reps (WERs)
- Energy democracy based on the public ownership and democratic control of energy
- A national plan to transition to 100% renewable energy by 2050
- All energy, including fossil fuels, reclaimed into public ownership as we transition to a zero carbon economy
- A commission to look at the regulatory and legal frameworks for establishing models of democratic control and the institutions needed to achieve this at community, regional and central level
- Direct government intervention to create a National Climate Service and related bodies as articulated in the One Million Climate Jobs campaign
- An adequately resourced system of tax collection that puts an end to tax avoidance and evasion
- A just and transformative transition to a zero carbon economy which safeguards workers and their communities livelihoods through social protections and challenges the inequality and injustice of the current system
- A civil service for people not capital.

HOW DO WE SUCCEED?

The trade union movement has a wealth of experience and knowledge to achieve this transition. But it will depend on developing a coherent trade union response across all sectors to organise – politically and industrially – in our workplaces, our trade unions and in our communities. We will succeed if we are convincing in our arguments, not just on the science, but the politics and economics of climate change.

There are risks involved to workers and communities but dating back to the Tolpuddle Martyrs of the nineteenth century we have always understood there was a risk in fighting for economic and social justice. But when the labour movement acts collectively and in solidarity, we win.

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146 <https://www.publications.parliament.uk/pa/cm200607/cmselect/cmpubadm/672/672.pdf>

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148 PCS includes all our members and workers carrying out the administrative functions of the state within this whether on privatised contracts, arms-length bodies or public bodies.

149 The case for the Civil and Public Services: an alternative vision

150 <http://www.psir.org/sites/default/files/2016-04-E-UK-public.pdf> see page 3 - accessed 24 January 2017

151 The phrase “common treasury” is taken from the 17th Diggers or “True Levellers” who argued that land should be held in common for all and opposing ideas of private property.

152 See Section Two and carbon budgets ref shifting timelines for when need to do what by to stay within two degrees.

153 <https://www.equalityhumanrights.com/en/advice-and-guidance/public-sector-equality-duty>

154 The Future’s Green: Jobs and the UK low-carbon transition by Jenny Bird and Kayte Lawton October 2009

155 <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/CDP-2016-0197#fullreport>

156 Note much focus on the skills gap tends to focus on the so called Science, Technology, Engineering and Maths (STEM) skills. Whilst important, this is not limited to these areas and many people will be needed to build capacity for remunicipalisation, including how to do democracy and enable real worker and community participation.

157 <http://www.cityam.com/257659/green-investment-banks-stalled-sale-risks-red-faces> Accessed 24 January 2017.

158 This does not assume that compensation will be paid in all cases. Work done by the Public Services International Research Unit provides useful examples in remunicipalisation of water services – see <http://www.psir.org/sites/default/files/2014-11-W-HereToStay.pdf>

159 Research commissioned by PCS found the tax gap – the amount of tax money avoided or evaded - to be around £120bn.

160 HMRC: Building an uncertain future The Cuts don’t work: A report commissioned by PCS and the Tax justice Network 2016

161 State Intervention in Industry – a workers inquiry: Coventry, Liverpool, Newcastle, N.Tyneside Trades Councils 1980 page 6.

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ACKNOWLEDGEMENTS

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Chris has over 30 years of trade union experience in PCS and predecessor unions having served as national vice president and as a member of the national executive committee for many years.

Chris worked for the Land Registry from 1976 and was the lead negotiator and group president when he took up his elected AGS post in 2004. As a socialist and life member of Blackpool and Fylde Trades Council, Chris has been involved over many years in a variety of community and trade union based campaigns.

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Sam has worked in the AGS office since 2008. She supports the unions work on environmental and sustainability issues including representing PCS on the TUC Trade Unions Sustainable Development Advisory Committee (TUSDAC), and has been the main author of this pamphlet.

Karen Watts, National Executive Committee

Karen is a member of the PCS national executive committee and Climate Change and Environment Committee. Particular thanks to Karen for proofreading drafts of the pamphlet.

Reps at the Department for Business, Energy and Industrial Strategy (BEIS)

At a difficult time of transition from the Department of Energy and Climate Change (DECC) to BEIS, lead reps provided valuable advice on the concept of a National Climate Service.

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8707-03/17



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