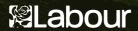
GREEN TRANSFORMATION FUND



FOR THE MANY NOT THE FEW

FOREWORD

Tackling the climate and environmental emergency is arguably the greatest challenge faced by any generation. Our actions in the next ten years will define the course of this century, and beyond.

We therefore stand at a crossroads.

We can invest in our Green Industrial
Revolution, deploying our collective
resources to rapidly green our economy,
creating one million skilled jobs and
laying the foundations of a society that
thrives and endures.

Or we can do nothing, tinker around the edges of our economy, and face unimaginable losses if we stick with the status quo.

This should be no choice at all. But it is the choice facing the British people this December.

We are therefore proud to set out Labour's Green Transformation Fund, the most ambitious, far-reaching investment programme put forward by a political party in modern times. It is a recognition of the scale of the challenge, but also the great opportunity if, together, we get this right.

It is nothing less than a plan to secure our future.

Shadow Business Secretary, Rebecca Long-Bailey

Shadow Chief Secretary to the Treasury, Peter Dowd

2

INTRODUCTION

This election is our last chance to act to prevent runaway climate change. It is also a once in a generation opportunity to rebuild our economy and communities by creating over one million good, skilled jobs to tackle the climate emergency, bringing new wealth to parts of the UK that have been held back for decades

The costs of inaction on the climate and environmental emergency vastly outweigh the costs of tackling it now. It has become clear that incremental steps have failed - we have reached the stage where only radical action will do.

Having lost a decade to delay, we must now take swift action to decarbonise our economy if we are to avoid the worst effects of climate change – scarcity of food and fresh water, extreme weather, and the collapse of ecosystems on which we all depend.

The UK is blessed with some of the best renewable resources in the world, concentrated off the coasts of the North East, Yorkshire, the East of England, the North West, the South West and Scotland. Investing to capture these resources will bring new wealth to the UK's regions, which have been starved of investment following Tory deindustrialisation in the 1980s and during a decade of austeritu.

Labour will create a £250 billion ten-year Green Transformation Fund to tackle the climate emergency head-on by upgrading and adapting our energy and transport systems and our buildings. Our programme of investment to put our climate and our economy on firm foundations has been shaped by research from leading climate and environmental scientists, renowned economists, dialogue with workers and their trade unions, and input from Labour members across the country.

The commitments outlined in this document include just some of the investments we will make from our Green Transformation Fund. Others, such as rolling out full fibre broadband to every part of the country, and increasing direct public funding in order to meet our target for 3% of GDP to be spent on research and development by 2030, are set out elsewhere.

This investment will unlock private sector investment many times larger and make all of us wealthier in the long term. And by taking radical action at home, UK companies will be in a prime position to make up a large share of the global green economy which by the late 2020s is expected to grow to \$9 trillion.

Investing now is believing in our future.

The investments we will make through our £250 billion Green Transformation Fund represent the fastest possible way of reaching net zero according to current expert advice. We are certain that with these polices we can cut the substantial majority of our emissions by 2030. We will continue to revise our plans as we make progress and new technologies emerge, with the aim of reaching net zero by 2030.

The commitments included in this pamphlet cover UK-wide and devolved matters. For areas that are devolved, we have allowed for Scotland, Wales and Northern Ireland to receive funding from within the GTF in line with the Barnett formula.



WARM HOMES FOR ALL

£60 billion investment 10% reduction in UK's emissions 450,000 jobs 27 million homes upgraded

Electricity and heat use in buildings is the biggest single source of emissions in the UK today.

To tackle the climate crisis, it is essential that we repair our ageing housing stock. Labour will upgrade almost every home in Britain to the highest energy efficiency standards feasible for each building by 2030. Reducing the amount of energy we need to stay warm will not only cut our emissions, it will also lower energy bills by an average of £417 a year.

This will eliminate the vast majority of fuel poverty by the mid-2020s, reduce cases of asthma by half a million and avoid 1,500 deaths from cold. Delivering our plan will directly and indirectly create 450,000 new, good, unionised jobs, including carpenters, electricians and gas engineers throughout the 2020s, spread evenly across the UK.

Costing based on advice from analysis from University of Leeds, Parity Projects and Cambridge Econometrics.

WIND POWER

£8 billion investment 7,000 offshore wind turbines 2,000 onshore wind turbines 100,000 jobs

Britain is the world's biggest market for offshore wind: we should be leading the world in wind power technology.

Labour will build an additional 7,000 offshore and 2,000 onshore wind turbines by 2030, producing almost 60% of the UK's electricity. We will take a majority stake in these new wind farms so that profits can be reinvested in the energy system and our communities. Whereas the UK currently imports the vast majority of

wind turbine parts, Labour will make the UK a world leader in designing, manufacturing and installing offshore renewable energy, creating 100,000 jobs here in the UK.

Costing based on forecasts by BEIS and Aurora Energy and modelling by the Offshore Renewable Energy Catapult, BVG Associates and Inno Energy.





ELECTRIC VEHICLES

£14 billion investment 228,000 jobs

The automotive sector is one of Britain's industrial success stories. We will introduce an ambitious package of measures to place the UK at the forefront of the electric vehicle revolution while cutting emissions and improving air quality. This package includes:

- A £3 billion investment in the production of new electric vehicles in the UK, protecting 195,000 jobs in the UK's automotive sector.
- A £2.3 billion investment in the construction of three battery plants, known as 'gigafactories', to manufacture the batteries needed for electric vehicles, creating 26,500 jobs.
- A £600 million investment in four metal reprocessing plants to reduce the environmental impact of electric

- vehicle production, creating 3,000 jobs.
- A £3.6 billion investment to roll out the electric vehicle charging network to every part of the UK, creating 3,000 jobs.
- A £3.5 billion package of interest free loans for electric vehicles, saving 2.5 million buyers up to £5,000 on the cost of a new vehicle.
- A £300 million investment in community car clubs so that everybody can benefit from the electric car revolution, whether they own a car or not

Costings based on information from Energy Systems Catapult, industry information and international comparisons, assuming a joint yenture model for industrial investments

SOLAR POWER

£3 billion investment 20,000 jobs

Enough solar to cover 22,000 football pitches

Labour will roll out solar power on our homes, our public buildings and businesses and marginal land – enough to cover 22,000 football pitches.

Rooftop solar will be funded through a combination of grants and interest free loans and will directly reduce energy bills for homes and businesses. Large scale solar will be funded through a mixture of public and private investment. As one of the cheapest forms of renewable energy it will bring

down the cost of energy for everyone while creating 20,000 jobs. Labour will also roll out solar power in public spaces like libraries and community centres, where the public will be able to get information on how to benefit from schemes like Warm Homes for All, and find out how to access jobs and training opportunities in the Green Industrial Revolution.

Costings based on forecasts by BEIS and Solar Trade Association and modelling by the Arup Engineering Group.





EMERGING TECHNOLOGIES

£6 billion investment 64,000 jobs

The global green economy is currently valued at \$4 trillion, and is projected to grow to \$9 trillion in value by 2030.

Britain was left behind in the race to develop wind and solar technology:
Labour won't let that happen again.
Our plans will put UK companies and workers in pole position to lead the world in designing and manufacturing the next generation of green technology, including marine power, hydrogen and carbon capture and storage (CCS).

We will invest £2 billion in joint ventures to develop tidal lagoon and tidal stream technologies, creating 22,000 jobs and securing our power system with the most predictable source of renewable energy – the tides that surround us. We will develop one small scale lagoon at Swansea, one large scale lagoon in the North West of England, and one thousand underwater turbines concentrated in Scotland, Wales, the South West and South East

Future export potential

Hydrogen gas burns with zero emissions, and can be used as substitute for natural gas in our homes, and as a fuel source for heavy goods vehicles and some industrial processes. We will invest £2.5 billion in the production and transport of hydrogen, with a focus on investments in Yorkshire and Humber, and the North East, creating 26,500 jobs.

Industrial processes like steel, cement and glass production emit carbon dioxide. CCS is the process of capturing those emissions at source, then transporting and storing carbon dioxide underground in rock formations. We will invest £1.5 billion to make UK heavy industries the lowest carbon in the world, creating 15,000 new jobs and protecting tens of thousands of jobs reliant on those industries.

Costings based on various reports to Welsh Government, analysis by and private correspondence with Offshore Renewable Energy Catapult, and reports by the Northern Gas Network and Pöyry.

BETTER PUBLIC TRANSPORT

£17 billion investment 3,000 bus routes reopened Local rail expansion fund

An expansive system of high quality, clean public transport not only reduces our emissions, it makes us healthier, connects people, and makes our villages, towns and cities more pleasant.

That's why more, better and cleaner public transport is central to Labour's vision for a fairer, greener, healthier country. We will invest to make cycling and walking safer and more accessible. We will reopen 3,000 bus routes and invest to make our bus services

cleaner and greener. We will create a dedicated fund to reopen local rail lines and expand and improve regional rail services, including Midlands Mainline and the East-West "science valley" rail link.

Costings include bus and rail upgrades and expansion and investment in cycling and walking infrastructure and are based on multiple sources including Midlands Connect and Department for Transport.





CROSSRAIL FOR THE NORTH

£7 billion investment Shorter journey times

A decade of underinvestment across the north of England has meant poor public transport, over-reliance on cars, communities isolated from each other and people forced to choose between limited job opportunities or long commutes.

Crossrail for the North, a new high-speed rail project, will link several major cities in the North of England.

Connecting millions of people living in Liverpool, Manchester, Leeds, Hull, and Newcastle and drastically cutting

journey times (Manchester to Leeds will take just 25 minutes, as will Liverpool to Manchester) will help to rebalance the economy and reduce emissions by making people less reliant on cars.

Cost for the first ten years based on reports by the National Infrastructure Commission.

TREE PLANTING

£3 billion investment 20,000 hectares a year 22,000 jobs

Restoring forests is one of the most effective ways of tackling the climate and environment emergency.

Trees naturally store carbon, sustainable forestry provides wood for industries like housebuilding to store even more carbon and mixed native woodland plantings help habitats and wildlife recover.

Our aim is to restore our natural environment by planting one billion new trees across Britain by 2030 and two billion by 2040, starting with an immediate investment of £3 billion. We will replant the mixed native woodlands in degraded environments and will enlarge commercial forestry, creating 20,000 hectares of new English forest a year.

We will identify the environmentally degraded sites for mixed native woodland plantings, focusing first on the biodiversity losses of our ten National Parks. The Urban Tree Challenge Fund will continue to plant street trees and community woodlands across England's towns and cities, and we will identify opportunities for tree-planting on the public estate, starting with a million new trees in an NHS Forest.

Our tree-planting programme will directly create 22,000 new jobs in planting and forestry, and many more indirect jobs in industries such as housebuilding, recreational leisure and tourism.

Costing based on analysis of data from Forestry Commission and Savills.





PORTS AND FABRICATION YARDS

£1 billion 4,000 jobs

A key reason the UK has fallen behind in offshore renewable industries is that it lacks the dockside space and fabrication facilities to produce and ship out offshore wind turbine components.

We will invest £1 billion million to upgrade ports and dockside infrastructure to enable the UK to become a world leader in the offshore renewable energy industry. Construction of the expanded port and fabrication yard facilities will create almost 4,000 jobs.

Costings based industry publications, research by the Offshore Renewable Energy Catapult and Offshore Valuation Group, and data from the Crown Estate.

STEEL AND PLASTICS RECYCLING

£3 billion investment 28,000 jobs

3 new steel recycling plants

A strong economy means strong foundation industries. Labour will help our plastics and steel industries adapt to the needs of a more circular economy.

The world is facing a global plastics crisis. A huge amount of plastic waste is being incinerated or pumped into our oceans and the natural environment. Labour will invest in nine new plastics re-manufacture and re-cycling sites, new sorting centres and research and innovation to develop more easily recyclable plastics, alternative materials and new approaches to packaging processes. This investment will ensure a smart and sustainable plastics industry, creating 25,000 jobs and driving

9 new plastics remanufacture and recycling sites

reduction, re-use, repair and recycling to protect our planet.

The UK currently scraps 10 million tonnes of steel a year, which is 100% recyclable, but instead of dealing with it domestically 90% of that scrap is exported abroad. We will invest in the construction of three new steel recycling plants, which use an electric arc furnace to melt scrap metal and turn it into high quality steel. These plants will be located in Workington, Redcar and Corby and will create 3,000 jobs in these former steel areas. The investment will be on a joint venture model including a majority public equity stake.

Costing based on analysis of data from Forestry Commission and Savills.





FLOOD DEFENCES

£6 billion investment 8,000 jobs

Tackling the climate and environmental emergency doesn't just mean reducing emissions, it also means adapting to the effects of climate change that we are already experiencing. Labour will provide at least an extra £5.6 billion in funding to improve the standard of flood defences and respond to the increased risk of flooding, prioritising areas at risk in North West England, Yorkshire and the East Midlands that have been neglected by the Conservatives. This will increase capital spending to the amount that

the Environment Agency estimates is needed to defend against the increased risk of flooding caused by global heating and will begin the upgrade of flood defences, in line with recommendations from the National Infrastructure Commission.

Costing based on analysis of existing Flood and Coastal Erosion Risk Management Expenditure and Environment Agency long-term investment scenarios.

