



# UNITE ENVIRONMENT QUARTERLY

Issue 4



The  
clock is  
ticking

**Jim Mowatt**  
Director of Education

October 2021

## FOREWORD

Dear Colleague,

With over one million members, Unite the union represents each individual member as a worker and as a citizen; moreover our ambition is not limited to our members and their families but for a socially just and equal world.

Our activities on the environment agenda reflects our policies, politics and ambitions to bridge the gap between aspiration and achievement.

Our immediate task is to raise our member's awareness of the threats of the climate emergency and the subsequent challenges that it poses to humankind in the medium-term and to our members' jobs, livelihoods and prospects in the short-term. Our ambition can only be achieved through our shop stewards at the workplace. Our Environment Agenda, has to be built around our collective bargaining strengths. Building industrial power, defending jobs, pay and conditions, is the bedrock on which our Environment Agenda is developed by stewards, branches, company and sector combines.

And that is exactly what we are doing – and have done and will do – in Education.

Meeting those challenges requires an “optimism of the will” and ensure that we follow the John Ruskin maxim of, it is not “what you think” but it's all about “what we are actively doing” and I hope that encourages you to do more!

Unite has demonstrated its resilience, professionalism and ambition since it was formed in the economic maelstrom of the Global Financial Crisis: creating a focussed and well-resourced education department proved an excellent investment. Our Environment Taskforce, the Environment Quarterly and the two editors, Adam Heppell and Carl Jerromes are products of that investment in Education; as are the bespoke courses and our education offer to our whole membership through 'Learn with Unite'.

The Environment Quarterly has been developed as a resource for our stewards, activists and members. The contents are an outcome of the debates within our Unite Environment Taskforce; plus stuff which we have garnered from many sources such as our front cover from Simone Basi to whom we are indebted for allowing us to benefit from his graphics.

And all this is taking place during the Coronavirus pandemic!

In solidarity



JIM MOWATT  
Convenor of Unite Environment Taskforce



# CONTENTS

## PART ONE

The Unite Environment Taskforce (Introduction)	4
Unite Environment Charter	5
Unite Environment Charter Glossary	6
What has the Unite Environment Taskforce done so far?	9

## PART TWO

Feedback from National Officers (Introduction)	16
Aerospace and Shipbuilding Sector	17
Automotive Sector	20
Chemical, Pharmaceutical Process and Textiles Sector	21
Education Sector	22
Energy & Utilities Sector	23
Finance and Legal Sector	26
Food, Drink and Agriculture Sector	27
Government, Defence, Prisons & Contractors Sector	30
Graphical, Paper, Media & IT – Sector	31
Hospitality Sector	32
Local Authorities Sector	33
Passenger Transport Sector	34

## PART THREE

Summary of the NISC, RISC & RC Sessions on the Environment	41
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## PART FOUR

Appendix 1 - A Sustainable Manufacturing Strategy	50
Appendix 2 - Notes from TUSDAC meetings (H1 2021)	51
Appendix 3 - Aerospace & Shipbuilding Report (Full Version)	53
Appendix 4 - Unite the Union Scotland Green Ports leaflet - 'A threat to workers rights?'	56
Appendix 5 - Unite Environment Quarterly Issue 4 Glossary	58

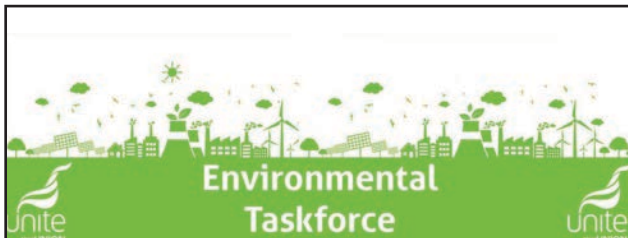
Cover photo: Simone Basi

# PART ONE

## The Unite Environment Taskforce:

The Unite Environment Taskforce was set up by Jim Mowatt, Director of Education for the Unite Union and Convenor of the Unite Environment Taskforce.

- Along with senior lay officials and employees within Unite, the Taskforce includes representatives from the TUC, Global Labour Institute, Greener Jobs Alliance, UCU, SOAS University of London, New Economics Foundation, the London Assembly, and a portfolio of independent researchers and tutors.



## Why is there a need for the Unite Environment Taskforce?

- The Unite Environment Taskforce has been set up to lead Unite's response to the Climate Emergency. This response is centred around a Just Transition for Unite members as industries, sectors and companies within the UK and Ireland transition towards low carbon / net-zero carbon economies.
- The UK government was the first government in the world to declare a Climate Emergency in 2019. All the devolved governments/ administrations within the UK have also declared a climate emergency.
- By February 2021, 74% (300 out of 404) of District, County, Unitary and Metropolitan Councils had declared a Climate Emergency. This includes 8 Combined Authorities / City Regions: <https://www.climateemergency.uk/blog/list-of-councils/>

- A Climate Emergency is defined by the Cambridge dictionary as:  
*'Serious and urgent problems that are being caused or likely to be caused by changes in the world's weather. In particular, the world getting warmer as a result of human activity increasing the level of carbon dioxide in the atmosphere.'*  
<https://dictionary.cambridge.org/dictionary/english/climate-emergency>

- In the introduction to Issue 3 of the Unite Quarterly Environment Report, we pointed out that Unite will be negotiating for a Just Transition to address the Climate Emergency. Unite will work tirelessly to ensure that its members are not left behind by the changes that will take place in all industries affected by the transition to low carbon / net-zero carbon economies.

- Industry changes will need to take place to tackle the Climate Emergency and achieve the net-zero carbon emission targets set by the UK government and devolved administrations. The UK government and the devolved governments in Northern Ireland and Wales have set a net-zero carbon emissions target by 2050.

- The devolved government in Scotland has an even more ambitious target of achieving net-zero carbon emissions by 2045: <https://www.gov.scot/news/scotland-to-become-a-net-zero-society/>
- It is believed that Scotland can meet this more ambitious target because of the geographical, ecological, and demographic make-up of Scotland. The Scottish landscape is less built up and has more natural landscapes than the other parts of the UK. Scotland has more forests than the other nations in the UK, allowing it to absorb more carbon than it releases. It has a greater abundance of carbon sinks than the other parts of the UK: <https://www.nationalgeographic.org/encyclopedia/carbon-sources-and-sinks/>



# unite the union

# ENVIRONMENT CHARTER

Unite believes there is a climate emergency. Trade unions will fight to ensure it is not working people, here and around the globe, who are left to pay the price of climate destruction.

This crisis must be met in a way that delivers better jobs, a better society and better world for all.

### **Unite calls for:**

The decarbonisation of our workplaces, industries and society.

The creation of a green society must mean a socially just and equal society.

Job guarantees to protect the jobs of the current workers and to ensure that all new jobs are good jobs – the right to decent work. That is the basis of our Organising Strategy, which is the cornerstone of our Union's Industrial Strategy – Work, Voice, Pay.

The workers must lead the 'Just Transition' in those industries affected.

International solidarity to ensure the creators of the climate crisis contribute their fair share to the solution.



[www.learnwithunite.org/environment](http://www.learnwithunite.org/environment)



# ENVIRONMENT CHARTER

Unite believes there is a climate emergency. Trade unions are central to the fight to ensure it is not working people, here and around the globe, who are left to pay the price of climate destruction. This crisis must be met in a way that delivers better jobs, a better society and a better world for all.

## **Unite calls for:**

### **The decarbonisation of our workplaces, industries and society**

Decarbonising workplaces and industries to be included as core collective bargaining discussions at workplace, employer and sectoral level, with workplace, environmental, equality and health and safety reps all given the support they need to achieve this. The Government at Westminster, national and devolved administrations must pledge the necessary resources to transition sectors. We need large scale public investment to upgrade our infrastructure, such as housing, energy, transport, to transition us as to a net zero society and improve all of our lives and local communities.

### **The creation of a green society must mean a socially just and equal society**

Policies to decarbonise and tackle the climate crisis must also be policies that improve people's quality of life, and prioritise equality and social justice. This includes achieving full employment with all jobs being good jobs, rebuilding and expanding our public services and public ownership, achieving equality and addressing discrimination, raising incomes, ending poverty and reversing our escalating wealth inequality. If we are mobilising unprecedented national resources to meet the threat of climate crisis we must ensure they are mobilised for the benefit of all.

### **Jobs guarantees to protect the jobs of current workers and to ensure that all new jobs are good jobs – the right to decent work**

Working people must not pay the price for the crisis they have not created. At every level, from workplace employers to government, Unite will use all the levers to fight and win job guarantees, protecting members' existing jobs and ensure where workers are transitioned to new work, all new jobs created are good, unionised jobs. This is part of our fight to win stronger employment and trade union rights, sectoral collective bargaining and to end the insecurity in work and to raise wages. That is the basis of our Organising Strategy, which is the cornerstone of our Union's Industrial Strategy – Work, Voice, Pay.

### **The workers must lead the 'Just Transition' in those industries affected**

Workers themselves are best placed to shape and determine what a 'just transition' means. From understanding how to utilise peoples' existing skills; to the training and development required for a green job; the pay and terms and conditions of their jobs, and the organisation of their workplaces. Determining the future of their industries and supporting local communities that are affected by the decarbonisation process.

### **International solidarity to ensure the creators of the climate crisis contribute their fair share to the solution**

Unite members are part of international supply chains, multinational companies, and global trade union federations. International solidarity has always been a central component of our union. We will not allow working people across the world to be divided in the workplace. As a country, the UK must take the lead in its contribution towards tackling the climate crisis.



[www.learnwithunite.org/environment](http://www.learnwithunite.org/environment)

# Glossary of terms relating to the Unite Environment Charter

## Introduction section

### Climate Emergency:

'Serious and urgent problems that are being caused or likely to be caused by changes in the world's weather. In particular, the world is getting warmer as a result of human activity increasing the level of carbon dioxide in the atmosphere'.

[CLIMATE EMERGENCY | meaning in the Cambridge English Dictionary](#)

## Point 1

### Decarbonisation:

'The process of replacing fossil fuels with fuel that is less harmful to the environment'.

[decarbonization noun – Definition, pictures, pronunciation and usage notes | Oxford Advanced Learner's Dictionary at OxfordLearnersDictionaries.com](#)

### Devolved Administration:

'Twenty years ago, devolution transformed the governance of Scotland, Wales and Northern Ireland. Wide-ranging powers to make law, manage public services, and set public spending priorities were transferred to new institutions in Edinburgh, Cardiff and Belfast. Devolution is now a permanent part of the UK constitution, but the devolution settlements have been anything but settled. Since 1999, devolution has evolved continuously. Extensive further powers have been transferred from Westminster, and the UK Parliament and Government have had to adapt in various ways. Since 2016, Brexit has created new tensions in the relationship between the UK and devolved governments.'

[Overview | The Institute for Government](#)

## Point 2

### Green Society / Green Economy:

'A green economy is one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcity'.

[1.3 Definitions for Green Economy.pdf \(unitar.org\)](#)

## Point 3

### Decent Work:

'Decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men'.

[Decent work \(ilo.org\)](#)

### Decent Pay:

'Fair wage, decent wage, living wage... it doesn't matter what you call it, it's about paying workers enough so that they can cover the basic costs required for a dignified, healthy life,' says Sabita Banerji, Ethical Trading Initiative.



Some countries have a legal minimum wage, but this does not always reflect either a living or a fair wage, and there is a difference between the two, explains IndustriALL Global Union's Monika Kemperle. "A living wage is a wage on which a worker and his or her family can live off. A fair wage does not always include the living costs for the dependents."

['Fair wage, decent wage, living wage...' Six things you need to know | Guardian sustainable business | The Guardian](#)

## Point 4

### Just Transition:

'A Just Transition secures the future and livelihoods of workers and their communities in the transition to a low-carbon economy. It is based on social dialogue between workers and their unions, employers, and government, and consultation with communities and civil society. A plan for Just Transition provides and guarantees better and decent jobs, social protection, more training opportunities, and greater job security for all workers affected by global warming and climate change policies.'

<https://www.ituc-csi.org/just-transition-centre>

## Point 5

### International Supply Chains:

'Global supply chains are networks that can span across multiple continents and countries for the purpose of sourcing and supplying goods and services. Global supply chains involve the flow of information, processes and resources across the globe'.

[Global Supply Chains | CIPS](#)

### Global Trade Union Federations:

'A Global Union Federation (GUF) or global union is an international confederation of national and regional trade unions organized in specific industry sectors or for particular occupational groups. There are 11 GUFs in total, including the International Federation of Journalists, the International Transport Workers' Federation, Public Service International, and the Union Network International. Previously GUFs were known as international trade secretariats. Most major unions in the UK and other countries are members of one or more GUFs, the pattern of affiliation reflecting the industry and occupational distribution of their members.'

GUFs have become more prominent in recent years, reflecting the forces of globalization and the pressure on unions to cooperate more effectively across national borders. They engage in a broad range of activities including supporting their member organizations, particularly in developing economies, lobbying international agencies to promote workers' interests and human rights, encouraging union organizing and international solidarity action, and in some cases engaging in global collective bargaining with large multinationals and employers' organizations.

The latter most frequently leads to the negotiation of framework agreements: statements of principle that commit management to accepting trade unionism and following good employment practice across the subsidiaries of a multinational corporation'.

[Global Union Federation – Oxford Reference](#)



## What has the Unite Environment Taskforce done so far?

- The Taskforce meets every two weeks to discuss important points relating to Unite's response to the Climate Emergency. These discussions allow the Taskforce to plan and facilitate strategy on Unite's approach to addressing the climate emergency.
- The central theme of Unite's strategy on addressing the challenges of the Climate Emergency, are detailed in the Unite Environment Charter on pages 5-6
- In its relatively brief existence, the Unite Environment Taskforce has set itself some ambitious goals. These goals are detailed below.

## 1. The Unite Environment Charter:

- The five points of the Charter are:
  - The decarbonisation of our workplaces, industries, and society.
  - The creation of a green society must mean a socially just and equal society.
  - Job guarantees to protect the jobs of current workers and to ensure that all new jobs are good jobs.
  - The workers must lead the 'Just Transition' in those industries affected.
  - International solidarity to ensure the creators of the climate crisis contribute their fair share to the solution.

## 2. The Unite Environment Conferences:

- There are two Unite Environment Conferences planned for 2021. The first Unite Environment Conference took place on September 16. The next Unite Environment Conference is planned to take place on November 30, 09:30-12:00.
- The speakers at the first Unite Environment Conference in September 2021 included the following:
  - Ed Miliband – Shadow Secretary of State for Business, Energy, and Industrial Strategy.
  - Sean Sweeney – Trade Unions for Energy Democracy (TUED).
  - Caitlin Lee – Unite the Union, Activist in the Hospitality sector, Glasgow.
  - Tony Devlin and Siobhan Endean – Unite National Officers.
  - Sue Longley – General Secretary of International Union of Food (IUF).

### 3. Unite Environment Education Toolkit:

- The Unite Environment Education Toolkit is to be used as an education guide on Unite's environment related education courses. It is based on a publication from the Wales TUC called 'Greener Workplaces and Just Transition': <https://www.tuc.org.uk/greener-workplaces-just-transition-wales-tuc-toolkit-trade-unionists>
- The Unite version will have examples and case studies that will help Unite Reps expand their knowledge on greener workplaces and Just Transition.
- The Unite Environment Taskforce has communicated with Unite National Officers to harvest Unite case study examples that can be used in the Unite Environment Education toolkit version. The Unite version of the Toolkit is planned for publication in Quarter 4 (Q4) 2021.
- We are indebted to the Wales TUC for their generous permission to build upon their work.

### 4. Unite Environment Taskforce Involvement in TUSDAC:

- The Unite Environment Taskforce has representatives who sit on the TUC's Trade Union Sustainable Development Advisory Committee (TUSDAC). They include Jim Mowatt (Convenor of the Unite Environment Taskforce), Colin Potter (Unite Researcher) and Tony Devlin, (National Officer).
- The Trade Union Sustainable Development Advisory Committee (TUSDAC) was established in 1998. The aim is to bring trade unions and Government together to discuss issues relating to trade unions, the environment and sustainable development.
- To provide a trade union perspective on the employment consequences of climate change, and the response to it.
- To help mobilise the trade union movement to become involved in the move towards better environmental practices in the workplace, building on existing initiatives and activities, disseminating information and experience.
- TUSDAC has attached a high priority to education and training on sustainable development: <https://publications.parliament.uk/pa/cm200405/cmselect/cmenvaud/84/84we43.htm>

#### The terms of reference for TUSDAC are:

- To direct trade union input into the policy process to enable constructive dialogue with Government on sustainable development and other related environmental issues.
- An account of Unite's involvement in the TUSDAC meetings for the first half of 2021 is provided by Unite researcher, Colin Potter. Colin's account can be read in Appendix 2 (page 51) of this report.



**Unite members  
at conference**

## 5. Delivering Environment sessions to NISCs, RISCs and Regional Committees:

- Members of the Unite Environment Taskforce and the Unite National Education Department have organised the delivery of discussion sessions at the majority of the Unite National Industrial Sector Committees' (NISC) meetings held in Quarter 3 (Q3) of this year. The remainder of the NISCs will be covered in their Quarter 4 (Q4) meetings later this year.
- We are currently in the process of organising sessions for the 171 Regional Industrial Sector Committees (RISCs) that are operational across Unite's 10 regions. Owing to the large number of individual RISC committees to cover, the Unite Environment Taskforce has taken the decision to deliver several zoom sessions over a four-week period for committee members to sign up to. These sessions will be offered at different times of the working week and weekend, to provide the flexibility to fit in with committee members work-life commitments.
- The key part of these discussions is centred on how the climate emergency and the decarbonisation process will affect each of the industry sectors that Unite operates in. The primary aim for Unite in its response to the climate emergency, is to ensure that a Just Transition occurs as industries transition to low carbon / net-zero carbon economies. This means that no Unite member should be negatively impacted in the transition process.
- A Just Transition will require employment and training opportunities for all Unite members who are active in the labour force. For people who are at or near to retirement age, a Just Transition will mean that they will have the opportunity to receive a financial retirement package that enables them to retire with a decent standard of living.
- The Just Transition process will require the necessary financial support for those members remaining in the labour force and those considering and approaching retirement.



## 6. Unite Environment Courses:

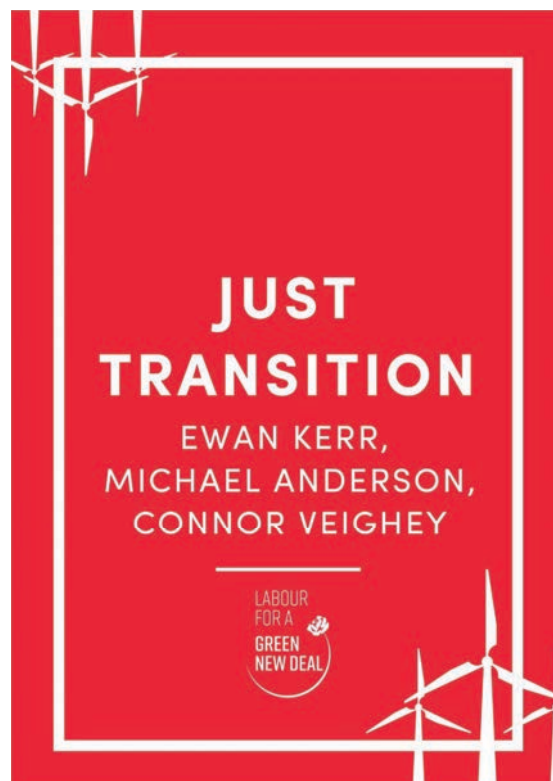
- The Unite National Education department has constructed a 45 minute awareness raising session on the Environment, a one day Environment course and a three day Environment course. A five day Environment course is in its final stages. There are also plans for a separate five day Environment course for Unite Reps and members that would like to become Unite Environment Reps, more commonly described as 'Green Reps'.
- The National Education Department has also discussed the possibility of constructing bespoke Environment courses that would be industry / sector / company specific based on the demand from Unite Officers, Reps, members, and the organisations which Unite work with. A super example of this development is the excellent work that the Global Labour Institute. (GLI) has accomplished in the Chemicals, Pharmaceuticals, Process and Textiles (CPPT) sector.

## 7. Environment content in core Unite courses:

- All the core Unite Representative training courses have had environment activities written into them.
- This includes the portfolio of Workplace Representatives, Health and Safety Representatives, and Union Learning Representatives courses.

## 8. Labour Party Leader of the Opposition Office (LOTO) – Just Transition Working Group:

- Unite Environment Taskforce members are part of this group.
- Information from this working group will be cascaded when made publically available.
- The Just Transition Working Group includes representatives from the Unite Environment



**Labour for a  
Just Transition  
and a Green  
New Deal**

## 9. COP 26 Glasgow:

■ Head of Politics & Campaigns Unite Scotland, Jackson Cullinane, has been involved in organising Unite's presence at fringe events and demonstrations linked to the COP 26 event in Glasgow in November 2021. Unite, along with other Scottish Trades Union Congress (STUC) and other alliances are working together as a coalition and will have a presence at the following events associated with COP26. Key dates identified so far are:

- Friday 5th November – STUC Event
- Saturday 6th November – Glasgow demo – TU section
- Sunday 7th November – STUC/COP26 Coalition
- Tuesday 9th November – Unite Hospitality

■ Events will be staged before and during COP 26. The purpose of these events is to mobilise the trade union movement and civil society to promote the Just Transition agenda. Venues are also being identified for activist hubs throughout the Glasgow COP 26 event. These will feature discussion groups, film showings, art exhibitions etc. Regional demos are being planned to coincide with the Glasgow demo on 6th November. There is a possibility of additional demos taking place in international locations on the 5th and 6th November as well as throughout the UK and Ireland.

### Scottish Labour Party:

■ Jackson and his team of Unite Reps have held discussions with the Scottish

Labour Party on Just Transition policy. This included Unite Reps from a range of sectors including Energy, Transport, Local Government, and Aerospace.

■ The discussions included a request for taxis with disabled access to be able to drive into Glasgow's Low Emission Zone Areas to pick up and drop off disabled passengers.

■ A scrappage scheme for taxis, whereby taxi drivers would be encouraged to replace diesel taxis with electric taxis. A financial incentive would be used to facilitate this.

### Freeports / Greenports:

■ Unite Scotland have produced a leaflet about the Scottish Government's suggested 'Greenports' (see Appendix 4 page 56). Unite Scotland's Greenports leaflet has been sent electronically to all Unite officers in Scotland for distribution throughout their Rep population. The Trade Justice Scotland Coalition is also distributing the leaflet, along with Unite membership recruitment forms from street stalls in various locations across Scotland.

■ Jackson has also provided the following link, which relates to the Unite Scotland submission to the Westminster Scottish Select Affairs Committee: <http://committees.parliament.uk/writtenevidence/35864/pdf/>

■ Jackson is a member of the Unite Environment Taskforce.



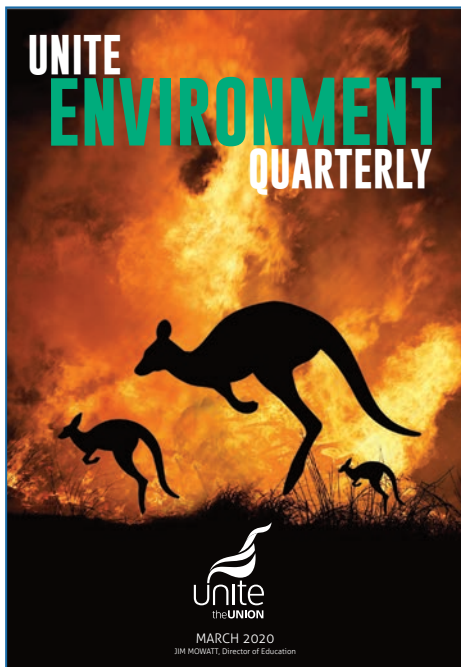
## 10. Unite Environment Quarterly

- Copies of the previous editions of the Unite Quarterly Report can be sourced from the Unite Environment website.
- Appendix 5 (page 58) provides a glossary of terms that relate to this issue (Issue 4) of the Unite Environment Quarterly.

## 11. Unite Environment Website

- Our Unite Environment website is a hub for important resources where videos, research papers and our own Environment Quarterly Reports can be viewed. Visit us at [www.learnwithunite.org/environment](http://www.learnwithunite.org/environment)

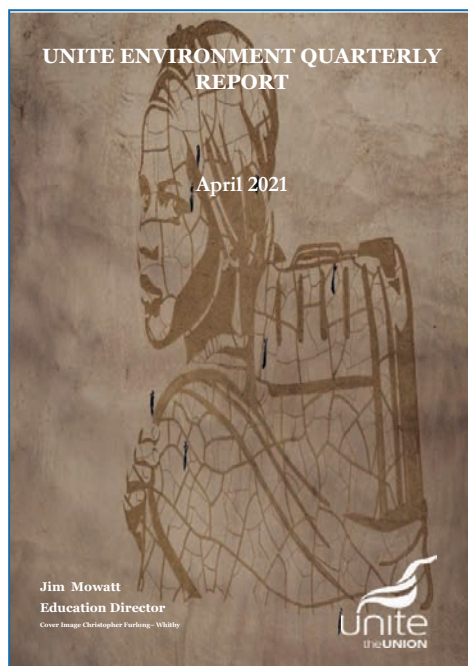
Issue 1



Issue 2



Issue 3





## Additional tasks undertaken by the Unite Environment Taskforce:

- Officer Training Package – National Officers Siobhan Endean and Tony Devlin are working with the taskforce on the construction of an Environment training programme for Unite officers.
- Environment Rep / Statutory Rights – the Unite Environment Taskforce has held discussions on the lack of statutory trade union rights for Environment Reps compared to Health and Safety Reps, Workplace Reps and Union Learning Representatives. Consequently, a motion will be presented to the Unite Executive Council concerning internally classifying Environment Reps as Health and Safety Reps. This is because Health and Safety Reps are covered by the highest statutory rights compared to other trade union representative roles. Unite will continue to lobby Parliament to obtain statutory rights for Environment Reps.



- Environment Officers – an open discussion took place in the Unite Environment Taskforce concerning the appointment of Environment Officers within Unite. This is a strategic move that is judged to be beneficial to Unite members and Unite's Just Transition agenda. Those regions within Unite that have officers focusing on environmental issues have reaped the benefit of this.

- Many of these region's members and Reps are now fully engaged with Unite's plans to address the climate emergency in their workplaces through a Just Transition agenda.
- Global Labour Institute (GLI) – are undertaking several projects for the Unite Environment Taskforce. They include:
  - Constructing a collection of stories and case studies of Just Transition to support the Unite Education Toolkit.



- Working with the Chemicals, Pharmaceuticals, Process and Textiles (CPPT), Food, Drink and Agriculture (FDA) and Downstream Oil Distribution (DOD) sectors to put together education programmes for 'Change at Work' Education Courses for members with a focus on climate emergency and Just Transition. These could be used to help construct a sectoral strategy based around the Unite Environment Charter, which considers practical strategies developed at a local level.
- Working with the International Union of Foodworkers (IUF) to produce a trade union guide on climate emergency and Just Transition in the meat and dairy sectors. It will be supported by an activity workbook to encourage practical action at a local level. This could become a useful guide for Unite members in the FDA sector, and other sectors.

## PART TWO

### Feedback from National Officers on how the Climate Emergency will affect the industries that they are responsible for:

- Throughout 2021 communication has taken place between the Unite Environment Taskforce, National Officers and the Regional Secretaries.
- This communication has focussed on receiving feedback from the National Officers and the Regional Secretaries. This feedback is based on how the decarbonisation process is and will affect national industrial sectors and regional industrial sectors.
- Unite National Officers have produced some insightful commentary on how their industries are and will be affected by changes to tackle the Climate Emergency. The following examples on pages 17-40 are based on the responses received from Unite National Officers.



**Unite members organising**



**The UK Government's decarbonisation agenda**

## Aerospace and Shipbuilding:

- The National Officer for the Aerospace and Shipbuilding sector, Rhys McCarthy, produced an extensive background briefing entitled 'The Future of the Aerospace & Shipbuilding sectors given the impacts of climate change'. A full version of this briefing is provided in Appendix 3 (page 53). An excerpt from the full briefing is provided here.

### Background and Introduction

- While the impact of climate change will be substantial on both these sectors, we will concentrate here chiefly on the Commercial Aerospace sector. The Commercial Aerospace sector is taking steps to reduce transport emissions as it aims to achieve net zero carbon emissions by 2050.
- A lot of these environmental impacts will be reflected in the Shipbuilding sector, which, is largely driven by the Ministry of Defence (MOD) procurement.
- The UK Aerospace sector is a vital export earner with around 90% of its jobs located outside London and the South East. Commercial Aerospace is central to the success of our nation's economy, with over 110,000 people directly employed in the sector and about four times this number employed indirectly. Strategic players in the UK sector include Airbus, Rolls-Royce, Bombardier, GKN, Collins Aerospace, GE, and Leonardo.
- The UK Aerospace sector is the second largest Commercial Aerospace sector in the world. It has been built through a highly skilled workforce and high value jobs that we have in the UK Aerospace industry. The average annual earnings in the UK Aerospace industry is £43,000. This is 45% higher than the UK average earnings of all other UK industries per annum.
- The sector has come under great strain due to the COVID-19 pandemic. This has massively reduced global flying activities leading to the cancellation and/or postponement of aircraft orders.
- With our aircraft manufacturing/servicing base under great threat, we must do all we can to secure/strengthen this vital sector, whilst also ensuring its green credentials are continually enhanced. In other countries such as France and the US, governments are significantly more supportive of their Commercial Aerospace sectors.
- Prior to the pandemic it was forecast that demand for new commercial aircraft was strong and that approximately 36,800 jets would be delivered globally over the 2017–2036 period. The demand at the UK level has seen substantial sums spent on research and development with £1.5 billion being spent in 2017 alone; 67% of this funding coming from Aerospace companies own funds. In 2017 the UK industry attracted £2.7 billion in private sector investment. In July 2020 it was announced that the UK Aerospace sector was to benefit from £400 million funding to help it go green.





- There are of course many hurdles to overcome, and no doubt research programmes will encounter some turbulence along the way. Perhaps the biggest risk doesn't come from the technology itself but rather from the ability of regulators to keep pace with changes in the industry.
- While electrification continues to generate increased innovation, safety is paramount within Aerospace. Safety is incorporated into everything. The pace of change within aviation electrification will be driven by the regulators' ability to test and substantiate new concepts.
- The regulatory challenge is not just confined to the design and manufacture of aircraft. It also covers a much wider spectrum, from airport infrastructure and operations, to air traffic control keeping airspace safe.
- This needs to take place in an increasingly connected world, whilst maintaining and improving physical security and cyber security.
- Unite are advocating the following sector demands of government in respect to the required financial and strategic support to the industry. This will help to alleviate the effects of Covid-19, and help a Just Transition to a greener, fairer future.
- There is a need for continued employment support to the Aerospace & Shipbuilding sectors from the UK government, due to the prolonged nature of the economic depression in these sectors. This should include:
  - Support for training/upskilling of workers to enhance/retain skills for future green growth.
  - 80% government grants rather than the current 50%.
  - A government aircraft replacement scheme to stimulate the Aerospace industry & promote green aviation technology.
  - Facilitate the lending of employees between businesses, or from business to the public sector, to safeguard the sector's high level of skills.
  - Flexible support, including short time working for Aerospace jobs to stop redundancies, retain skills and protect the economy.
  - Investment in 'Road to Net Zero' - Sustainable Aviation Fuel (SAF) and Hydrogen technologies.
  - The creation of new green jobs in existing industries, for example by supporting investment in Small Modular Reactor development, with risk and reward funding to UK manufacturers to bring it to the global market.
  - Investment in supply chains to enhance their green credentials and resilience.



## Conclusion:

- As demand for more efficient/faster air travel over greater distances grows, so do the challenges of balancing industry growth and environmental impacts.
- As the demand for air travel grows year on year, developing countries such as India and China, being geographically large, will see regional travel increase. This will result in regional air travel becoming as important for its impact on the environment as long-haul flights.
- Today 'less than 4% of regional trips are completed by air'. If regional air travel increases, then the global airport network will also be radically different from today.
- Research and Development into materials, design integration, biofuels, and carbon offsetting, will have an important role to play in the decarbonisation of air travel.
- To achieve the 2050 objectives on emissions, including decarbonisation and improved air quality, air travel requires radical change from how it is today. This will include the electrification of air travel.



**UKaerospace**

World-beating, let's keep it that way

**SURVIVE REBUILD RECOVER**

## Automotive Sector:

- Information from the Automotive sector has been provided by the Unite National Officers, Steve Bush and Des Quinn. The information below was sent following the Unite event 'Climate Emergency – A Workers Just Transition: Owning the Future'. This event took place in Quarter 1 (Q1) of 2021.



**Nissan electric vehicle built by Unite Members**

- The response from the National Officers is based on the theme of 'The Impact and Potential Impact of Decarbonisation on the Automotive Membership'. Below are the main findings from the National Officers for the Automotive sector:

- Key decarbonisation strategies include the electrification of vehicles (Electric Vehicles – EV) and the discouragement of car use and ownership. It is believed that this could significantly impact car manufacturers and the broader automotive industry.
- The automotive industry will be reshaped because of the large-scale transition that will take place as diesel, petrol and hybrid engines are phased out for vehicles emitting low / net-zero carbon emissions.
- An industrial strategy that supports the sector is imperative. This strategy should secure and create jobs for Unite members.
- Research has identified that between 43,000 to 76,000 jobs could be created in the UK by

building seven new gigafactories in the UK. Without the investment in gigafactories, it has been suggested that 105,000 jobs could be lost in the automotive sector by 2040.

- Unite has called for a 'new automotive renewal scheme'. This will provide a real and necessary boost to the automotive sector, creating employment, and protecting the environment. This is designed to offset potential negative changes, such as job losses, from the impending ban on internal combustion engines (ICE). The UK government has announced a ban on sales of new diesel, petrol, and hybrid engines from 2030.



**Electric Black Cab built by Unite Members**

- Unite has called for the 'new automotive renewal schemes' to include strict provisions on UK content qualifications. These provisions suggest that UK manufactured products should be at the core of this new age of automotive production.



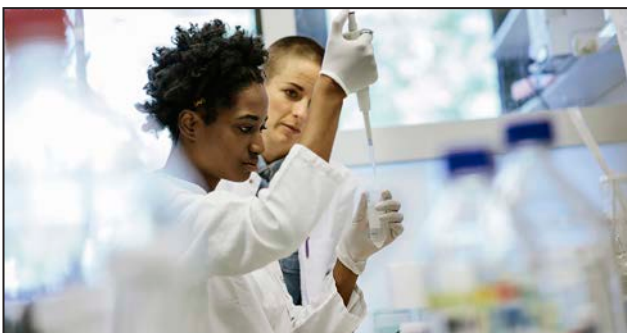
**Electric BMW Mini built by Unite Members**

- The New Automotive Renewal Schemes are designed to maintain substantial levels of employment in the UK Automotive sector and the supply chain industries that support the sector.



## Chemical, Pharmaceutical, Process and Textiles (CPPT):

- The following report was compiled by Georgia Montague-Nelson (GLI) in conjunction with Tony Devlin (Unite National Officer for CPPT) and Frank Gray (Unite Researcher).
- Workers in all sectors across Unite are facing huge challenges because of the climate emergency. Unite members are strongly represented in energy and carbon intensive sectors.
- Of the eight industrial sectors that currently emit around two thirds of industrial carbon emissions, four of these are contained in the Chemical, Pharmaceutical, Process and Textiles (CPPT) sector. These are ceramics, chemicals, glass, and oil refining.
- The CPPT sector is being reshaped by the climate emergency. Although some members have reported that employers are responding to the need to transition towards a green economy, other employers are taking a 'business as usual' approach. But transition towards a green economy is necessary and unavoidable. This will have serious implications for workers in the CPPT sectors unless they have the opportunity to help lead and shape the change to ensure that any transition is truly 'just' for workers.



### Unite Pharmaceutical sector

- The CPPT sector has been undertaking work to fight for a worker-led Just Transition in the sector. Tony Devlin (National Officer) and Frank Gray (Unite researcher). have prepared the document 'Green Economy: CPPT – A Workers' Transition. This outlines a set of demands aimed at securing a worker-led transition to a green economy in the CPPT sector.

- During the Covid –19 pandemic, the Global Labour Institute (GLI) in Manchester has also been working with the CPPT sector to hold a series of virtual education sessions focused on challenges facing the sector. A key challenge consistently raised by members was decarbonisation and the climate emergency.
- In Q1 2021, GLI worked with the CPPT sector to hold a conference. The conference explored the impact of decarbonisation on the CPPT sector and the role of unions in securing a 'workers Just Transition' to a green economy. This built upon the document 'A Green Economy: CPPT – "A Workers' Transition" produced by Tony Devlin and Frank Gray.
- Discussions from the conference highlighted key themes including – the need to achieve a worker-led Just Transition, the role of hydrogen, the skills agenda to support the transition, and mobilising across the sector for COP26, amongst others.
- GLI has continued to work with the CPPT sector to develop education tools focused on the climate emergency and decarbonisation, complementing the ongoing work of the Unite Environment Taskforce.
- In Autumn 2021, the CPPT sector will be launching the next part of the education programme. The combined education and research programme, developed by GLI, will focus on building an industrial strategy based on the transitional challenges facing the sector. This will support an industry level 'workers transition' to a greener, fairer CPPT sector that is able to provide decent, secure, and well-paid jobs in a rapidly changing economy.
- The programme's broad scope will focus on key dynamics of transition in the sector. These include the interlinked and evolving challenges of the climate emergency, decarbonisation, Brexit, shifts in trade policy, technological change, and automation, amongst others.
- The programme will be worker-led. Contributions from members at the launch event will be used to decide the content of the programme. This will ensure that it will be tailored to the evolving challenges and needs facing workers in the transition.

## Education Sector:

- Siobhan Endean (National Officer for Education) provided the following information relating to how the climate emergency has and will affect the Education sector:
- Unite members in the Education sector have a key role to play in reducing carbon emissions. They work as technicians, cleaners, in estates, IT, in libraries, in research and in offices.
- Operating in key roles within their organisations, Unite members can work with their employers to tackle the climate emergency. They can help to implement changes to reduce the carbon footprint, they can raise the awareness of environmental issues in the workplace, and they can promote energy efficiency initiatives.
- Unite members in the Education sector can also become involved in wider actions to address the climate emergency. This could include becoming involved in community initiatives and supporting research into new technologies that enable a Just Transition to a low carbon / net-zero carbon status for sectors like manufacturing, transport, and public services.
- Unite branches in the Education sector are electing union green reps. These union green reps will be trained in undertaking effective union environmental action plans. Research, development, and monitoring will be built into these union environmental action plans.
- Unite reps in the Education sector are focused on ensuring that the union has a voice at the decision-making table on green issues. This will allow them to develop best practise and lead on implementing change within their organisations. Unite reps can negotiate with employers for investment in training, retraining and new ways of working to protect jobs and livelihoods as the economy decarbonises.
- Unite Reps in the Education sector have reached out to the wider Unite family and built links with Unite members in the manufacturing and transport industries.
- The aim for the Unite Education sector is to build a common agenda. This common agenda will aim to ensure that our communities and our industries have trade union representation to help deliver a Just Transition to low carbon / net-zero carbon economies.



**Unite National Education Centre, Birmingham**

## Energy & Utilities – Response Q1 2021

■ Peter McIntosh, the former National Officer for the Energy and Utility sector, provided the following responses to three questions set by the Unite Environment Taskforce. These questions and responses were constructed in Quarter 1 (Q1) of 2021.

### Details on how environmental issues are impacting the various sectors of your membership:

- The changing face of electricity generation with the demise of coal.
- The development of low carbon energy at Hinkley Point C.

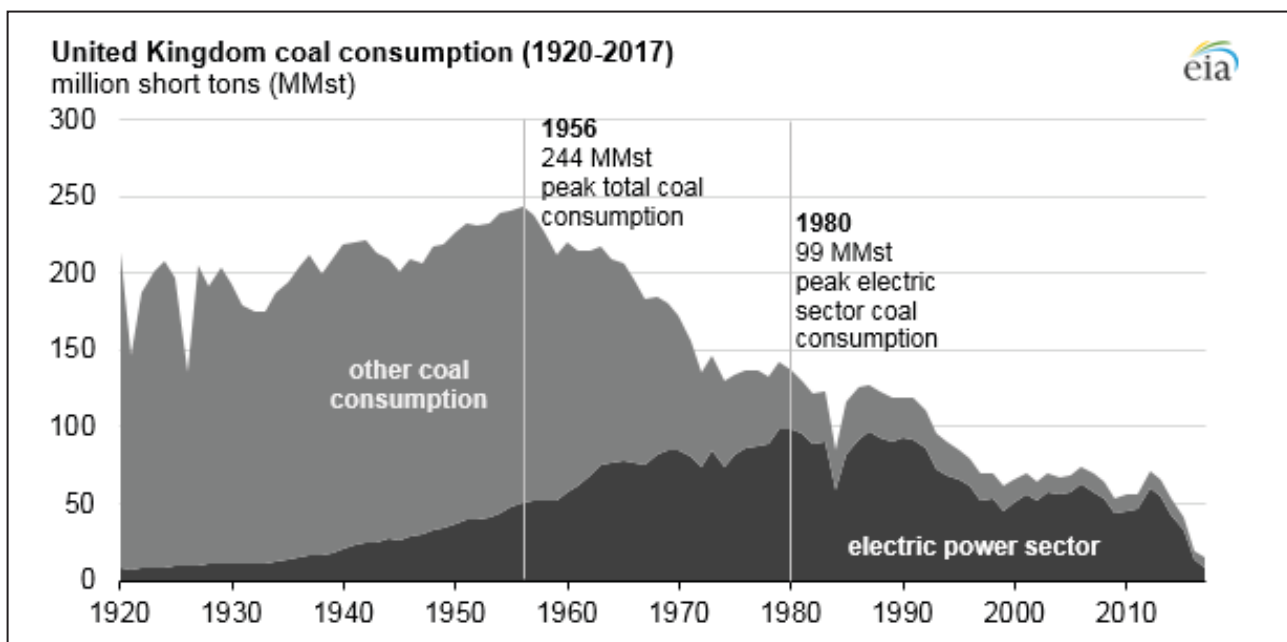
### What investment is taking place (or not) in your companies?

- Investment is taking place in Smart Metering. However, the development of Smart Metering has been severely disrupted due to the COVID-19 Pandemic. This investment will create jobs in the installation phase but will result in a reduction in jobs at the end of the installation phase.

- Investment has taken place in renewables, such as wind, solar farms, and other renewable technologies. Whilst there have been some successes in onshore and offshore wind projects, Unite has found it difficult to recruit members and organise in the renewable sector despite several attempts.

### What discussions are you involved in to mitigate the threats and promote the opportunities regarding environmental issues?

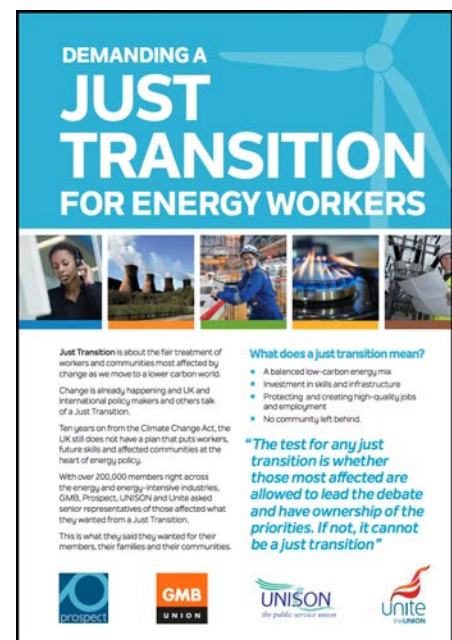
- Involvement in a campaign to ensure Sizewell C is built.
- Ongoing participation in TUC Trade Union Sustainability Advisory Committee (TUSDAC).
- The 4 Energy Unions 'Demanding a Just Transition' two-page leaflet – this could be publicised further: [https://library.prospect.org.uk/documents/201802124\\_demanding\\_a\\_just\\_transition\\_for\\_energy\\_workers](https://library.prospect.org.uk/documents/201802124_demanding_a_just_transition_for_energy_workers)
- Unite recommend a balanced energy policy which should be promoted at every opportunity. This will include nuclear and renewable energy, which are both low carbon forms of energy generation. The nuclear industry employs many workers with decent, highly skilled, and unionised jobs.



### Demise of coal for electricity generation

## Energy & Utilities – Response Q2 2021

- The following response was sent from Rob McGregor, the new National Officer for the Energy and Utility sector, in Quarter 2 (Q2) 2021:
- The Energy sector is a key industry that the UK government is targeting to meet its carbon emission reduction targets. Energy from sustainable sources (sun, wind) will replace fossil fuel-based energy.
- The energy transition has resulted in redundancies with little support for the affected workers, their families, and the regional economies where the redundancies have occurred.
- Unite and other trade unions in the energy industry have called for a Just Transition to ensure a fair and equitable decarbonisation process.
- A Just Transition provides opportunities for affected workers to be retrained and reskilled to enable them to be employed in the sustainable economy. The necessary financial support for affected workers should also be included in the Just Transition package.
- One example of a Just Transition in the energy and utility sector is with smart meter engineers. Legislation has meant that energy providers are required to install energy smart meters into all homes and businesses. This involves training up large teams of smart meter installers.
- It is suggested that the smart meter engineers could be trained to become heating engineers once smart meters have been installed in all homes and businesses. This large-scale training of heating engineers would facilitate the retrofitting of homes and businesses that will be required to achieve energy efficiency.
- Retrofitting is needed for every home and business as energy transitions from the natural gas network to sustainable forms of energy to achieve the UK and devolved Governments net zero carbon emission targets by 2050 and 2045.
- A major upgrade of the National Grid will be needed to assist more electronic powered transport and electronic heating. It is estimated that the National Grid will need to double its power generation. This has the potential of creating the need for more workers in the Energy sector.

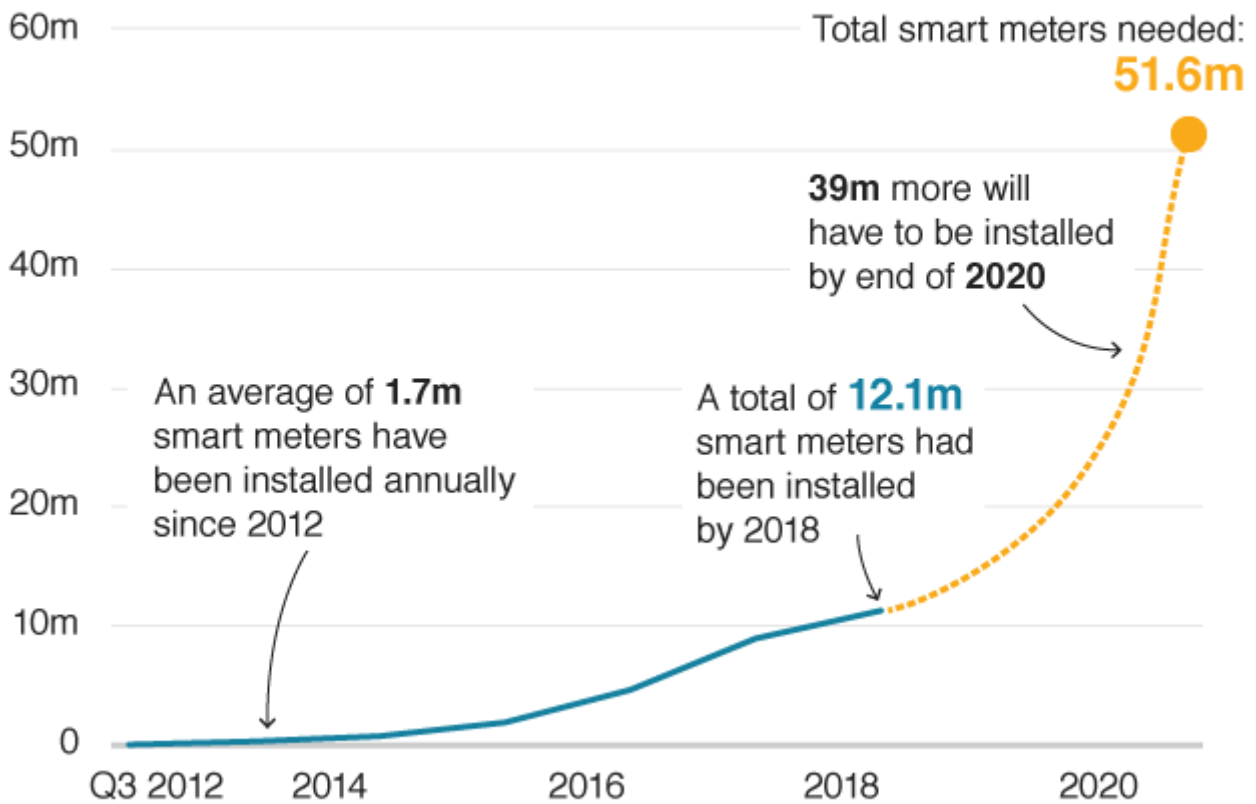


**Unite supports a Just Transition for Energy Workers**



## Can the smart meter target be reached?

Cumulative installations by year



Note: Quarterly figures for England, Scotland and Wales.  
Data includes domestic and small businesses

Source: National Audit Office



**Unite supports a balanced energy policy, including safe nuclear power**

Unite recognises the need for a balanced energy programme with safe nuclear power making a fundamental contribution in a low carbon balanced energy mix.

As members of trade unionists for Safe Nuclear Energy (TUSNE) with Prospect and the GMB, we unite around a single aim: the well-being of the nuclear industry and its employees – our members.

## Finance and Legal:

- The National Officer for the Finance and Legal sector within Unite, Dominic Hook, provided a response to two questions on how the environment is and will affect the Finance and Legal sectors and the companies within these sectors.
- It was highlighted that the biggest impact of environmental issues in the Finance and Legal sector is the investment choices of the main banks and the investment industry.
- It was confirmed that hardly any of Unite's members in the Finance and Legal sector work in the investment department within the organisations where Unite represents members. It is believed that there are no direct threats to members' jobs from environmental issues.

■ It was identified that the biggest threat to jobs in the Finance and Legal sector is from automation, digitalisation and cutbacks linked to the COVID-19 pandemic and employers' desires to further reduce their cost base.

■ Unite has worked with and is member of an organisation called ShareAction. ShareAction ensure that savers' voices are heard by the organisation's that are managing their money.

■ Unite's work with ShareAction helps to unlock the power of investors to influence the behaviour of companies and their impacts on society and the environment:

<https://shareaction.org/>

**ShareAction**   
the movement for Responsible Investment



**Unite supports  
Ethical Investments**

## Food, Drink and Agriculture Sector – Response Q1 2021

■ Bev Clarkson, the National Officer for the Food, Drink and Agriculture sector, provided the following responses to four questions: in Quarter 1 (Q1) of 2021:

### 1) Details on how environmental issues are impacting on various sectors of your membership.



■ The Food, Drink and Agriculture (FDA) sector published a document entitled 'From Plough to Plate' in 2015. A sub-group of the NISC has drawn up a list of priorities on the environment. Their PESTLE (Political, Economic, Sociological, Technological, Legal & Environmental) analysis produced the following list of priorities:

- Climate crisis
- Technology
- Chemicals
- IUU (illegal, unreported, unregulated) fishing
- Palm oil
- Land use
- Sustainability
- Food security
- Crop supply

■ These priorities affect all sub-sectors within the FDA sector, and have links to other industrial sectors within Unite.

■ The FDA NISC has been developing a position on the environment since 2015. This has resulted in the following priorities being added to the 'From The Plough To Plate' Report originally published in 2015:

- Plastics
- Recycling
- Food waste
- Neonics
- Antibiotics

### 2) What investment is taking place (or not) in your companies?

■ Following Brexit, the UK will replace the Common Agricultural Policy (CAP) with a new farm subsidy. This subsidy will be based on 'public money for public good', with sustainable farming methods being an important requirement for this public funding. The finer details of the UK government's policy to replace the CAP is still being developed.

■ Companies that are involved in food and drink manufacturing often include sections in their annual reports regarding their commitment to addressing environmental and sustainability issues.

■ Investment levels to address environmental and sustainability issues differ between companies.

### 3) What discussions are you involved in to mitigate threats and open opportunities regarding the environment?

■ Unite is represented at the IUF (International Union of Food). The full name of the IUF is the International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers Association. It is a global union federation of trade unions with members in a variety of industries linked to food processing. Unite is also represented at EFFAT (The European Federation of Food, Agriculture & Tourism Trade Unions).



#### 4) What reskilling is being undertaken or being planned?

- The FDA sector has a poor record of training and skills development compared to the rest of manufacturing. This is particularly the case in the agricultural sector.
- Many companies in the FDA sector are reliant on 'reserve armies of labour and workers'. Unite members in the FDA sector are generally better paid and higher skilled than other workers in the industry.
- The FDA industry is generally viewed as a low wage and low skill sector of the economy. There are skill shortages in engineering and specialist technical areas within the FDA sector, e.g. in robotics.
- In 2018, the Food and Drink Federation (FDF) estimated that a third of the FDA sector's workforce is due to retire by 2024. This demographic information along with the consequences of Brexit and COVID-19, has created an uncertainty around the skill needs and number of workers required to achieve a sustainable FDA sector.
- The FDF is the membership body for the food and drink manufacturing sector. It represents and supports food and drink companies, from sole traders and SMEs to the largest global brands.



## FROM PLOUGH TO PLATE

OUR UNITE FARM AND FOOD WORKERS ARE INCREDIBLE, WORKING NIGHT AND DAY TO FEED THE NATION — **WE THANK YOU.**





## Food, Drink and Agriculture Sector – Response Q3 2021

### 1) Food, Drink & Agriculture – July 2021:

■ In Quarter 3 (Q3) 2021, Bev Clarkson (National Officer) provided the following responses to two questions set by the Unite Environment Taskforce:

1. How do you as the National Official see the future of your sector/industry/ companies?
2. What have been and will be the impacts of Environmental Climate Change policies on your sector/industry/companies?

#### The responses are provided below:

- The FDA sector will be significantly affected in the future. A shortage in raw materials is likely to result in job losses. Employers will have to change their working methods, and / or look to source alternative ingredients.
- Using alternative ingredients is not always a bad thing. This approach could help to reduce carbon emitting air miles that accumulate from the international transportation of food.

- Pressure should be placed on the major supermarkets, that have a stranglehold on the FDA sector, to use home grown ingredients. Supermarkets could educate their customers so that they have a knowledge of the carbon footprint of the food they are buying and eating.
- The FDA is a sector that produces high carbon emissions in the food production process and the fresh produce part of the sector.
- Climate change will affect the numbers of fish in the sea as ocean temperatures rise. Overfishing needs to be tackled so that fishing can become sustainable in the future. The current mass meat farming needs to be reviewed and altered to a more sustainable model.
- The large demand for meat products has resulted in deforestation in many parts of the world, e.g., the Amazon Rainforest in Brazil. This has been done to create grazing land for livestock and the creation of soy plantations. Soy products are the stable diet for many livestock.
- The changes required to make the FDA sector sustainable will have an impact on the workers in the sector. That is why a Just Transition within the FDA sector will be a priority negotiating strategy for Unite.



**FROM PLOUGH TO PLATE**  
**OUR UNITE FARM AND FOOD WORKERS ARE**  
**INCREDIBLE, WORKING NIGHT AND DAY TO**  
**FEED THE NATION — WE THANK YOU.**

## Government, Defence, Prisons & Contractors (GDPC):

- The National Officer for the GDPC sector, Caren Evans, provided the following responses to the request for answers on the subject of 'Unite the Environment and the Future of Work'. This response was sent in Quarter 2 (Q2) of 2021:
- The main threats to the GDP&C sector come from privatisation, artificial intelligence (AI) and budget cuts.
- Unite members in the GDPC sector are at the forefront of achieving a greener future. This can be achieved through members actions in their job roles and their union activity. Unite members already promote sustainability in the various government departments in which they work. This includes the Environment Agency.
- The four new prisons being built by the UK government will be built as Green Prisons. These new prisons include HMP Five Wells in Wellingborough, Northamptonshire, and Glen Parva in Leicestershire.
- These Green Prisons will include heat pumps, efficient lighting systems and solar panels. It is estimated that carbon emissions will be cut by around 85% in the green prisons.
- The GDPC NISC hopes to see similar green initiatives taking place in existing UK prisons. The aim is for all jails to have net zero carbon emissions in the future.
- Unite members in the Defence industry can play a pivotal role in reducing emissions in the UK. Defence accounts for 50% of the UK governments carbon emissions. The Unite membership in the Defence sector supports the UK government's integrated review on defence, which includes a green focus.
- An example of this is Unite members working in the Contractors section. Those working for Landmarc at Westdown Camp on Salisbury Plain have operated a successful 'no mow' trial in the summer months. This was done to encourage wild herbs, flowers, and shrubs to grow as part of an effort to increase pollinating insect populations.
- This initiative will be rolled out across the country due to the positive results which have been achieved. This has included a thriving bee population from this pollinator friendly land management approach.
- The GDPC sectors are creating decent green jobs so that the industries can have sustainable futures.





## Graphical, Paper, Media & IT – (GPM & IT)

- The National Officer for Graphical, Paper, Media & IT, Louisa Bull, provided a series of examples of how environmental issues are affecting the GPM & IT sector.

Example 1: Employer – The Confederation of Paper Industry Federation:

- The NISC identified that the Forest Stewardship Council (FSC) certifications are up for renewal in October 2021. This will have an impact on all paper and packaging products. FSC certification ensures that paper and packaging products are sourced from responsibly managed forests that provide environmental, social, and economic benefits. The FSC Principles and Criteria provide a foundation for all forest management standards globally.

Example 2: Employer - Iggesund Paper Mill Ltd – Cumbria:

- The GPM & IT NISC have highlighted that a big issue for Iggesund Paper Mill Ltd, Cumbria is the return of energy to the Grid from their Biomass plant. This will have potential tax implications for the organisation. It was identified that the company could also share their energy with local towns. Biomass fuel is increasingly coming under scrutiny for not being an environmentally friendly form of energy generation. Pressure is being placed on the UK Government to ban biomass fuel as a source of energy generation.

Example 3: Employer – Campaign Group Two Sides:

- The NISC has identified that the Two Sides campaign group has been promoting blended communication strategies based on online and physical (paper-based) communication materials. This was designed to reduce the need for paper to save trees. Trees have natural carbon absorbing qualities. They are able to absorb carbon from the atmosphere and draw it back into the ground through their branch structure.

Example 4: Employer – Packaging Sector Initiatives:

- The NISC has noted that this employer has moved away from producing plastic straws, bags, and packaging to paper alternatives. This has resulted in regular discussions around jobs, upskilling and Research and Development.

Observations / Comments / Suggestions:

- The Pulp and Paper industry in the UK has an annual turnover of £12 billion. The industry directly employs around 62,000 people with around 100,000 people employed in the supply chain linked to the industry. The industry is an important part of the UK Government's road map for achieving net-zero carbon emissions by 2050. The roadmap covers eight sectors: Pulp & Paper; Cement; Ceramics; Food & Drink; Glass; Iron; Steel and Oil Refining.



**Unite in the IT sector**

## Hospitality Sector:

The National Officer for the Hospitality Sector, Dave Turnbull, responded to the request for information on how the climate emergency will affect the Hospitality industry by providing a link to the following report, 'Hotel Global Decarbonisation Report': [https://buildingtransparency-live-87c7ea3ad4714-809eaa.divio-media.com/filer\\_public/c4/9c/c49c0756-d91b-43b6-9819-6f4a2215052b/wc\\_am-hoteldecarbonizationreportpdf.pdf](https://buildingtransparency-live-87c7ea3ad4714-809eaa.divio-media.com/filer_public/c4/9c/c49c0756-d91b-43b6-9819-6f4a2215052b/wc_am-hoteldecarbonizationreportpdf.pdf)

- The conclusion of the report highlighted the following points:
- Climate Change is taking place and cannot be ignored. The average global temperature reached its highest ever level in 2016. Increased temperatures cause rising sea levels, more extreme weather events and shrinking ice caps and glaciers.
- Since this report was written in 2017, the average global temperature reached its second highest ever level in 2019.



- Business has a responsibility to take the required action to address climate change. The global hotel industry is a growth industry due to the growing demand for international tourism.
- The growth in international tourism does result in economic benefits, especially for developing countries. However, this economic growth should not take place at a cost of increases in carbon emissions.

- For 25 years the International Tourism Partnership (ITP) has worked with the world leading hotel groups to develop strategies to achieve sustainable growth.
- The report identifies that efficiency targets are not enough to address the climate emergency. The Hotel industry needs to adopt science-based targets to help tackle the climate emergency.



- Science based targets are now the order of the day for businesses in the fight against the climate emergency. The hotel industry must ensure that it is line with responses of other industry sectors to the climate emergency.
- The report highlights the roadmap that the hotel industry is constructing to implement the changes that are required to meet the challenges of decarbonisation. This includes a robust metric analysis to identify if the science-based targets are being met.
- The report concludes by stating that hotel companies and the wider hotel industry are invited to join the ITP in reducing carbon emissions at scale.





## Local Authorities:

The following response was received from Jim Kennedy, National Officer for the Local Authorities sector in Quarter 3 (Q3) of 2021.

### 1) How do you as the National Official see the future of your sector / industry / companies?

- The future of the sector is of increased job insecurity and continued low pay. Our lowest banded workers have a reliance on in work benefits. The sector is obscenely underfunded by central government, and overseen by employers who do not value their dedicated and loyal workforce.
- A major challenge is managing outsourced organisations that apply differing terms and pay conditions through different contracts and adopt an adversarial approach to the union.
- Our activists and officers have been successful in bringing some services back in-house.
- Too often there is resistance from Labour run councils in progressing an insourcing policy.

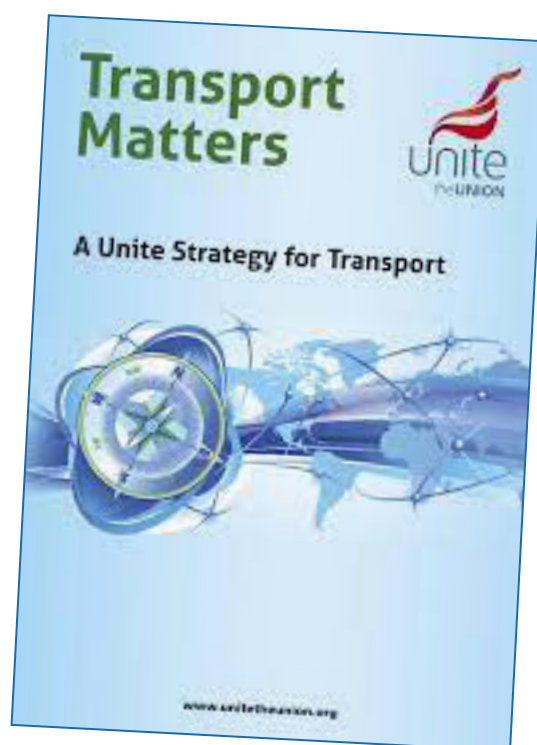
### 2. What have been and will be the impacts of Environmental / Climate Change policies on your sector / industry / companies?

- Each local authority applies its own policy on such issues. The national agreement makes reference to the following:
- When exposed to new or increased risks due to changes in the environment or the introduction of new technology the following applies:
- Employers are responsible for having the right policies in place to comply with both health and safety and equality laws. This will include ensuring managers are trained in their successful implementation.
- For those who supervise and manage service provision, training must be reviewed periodically.
- Safety representatives should be involved in the development and delivery of training programmes to ensure all existing and new risks are addressed.

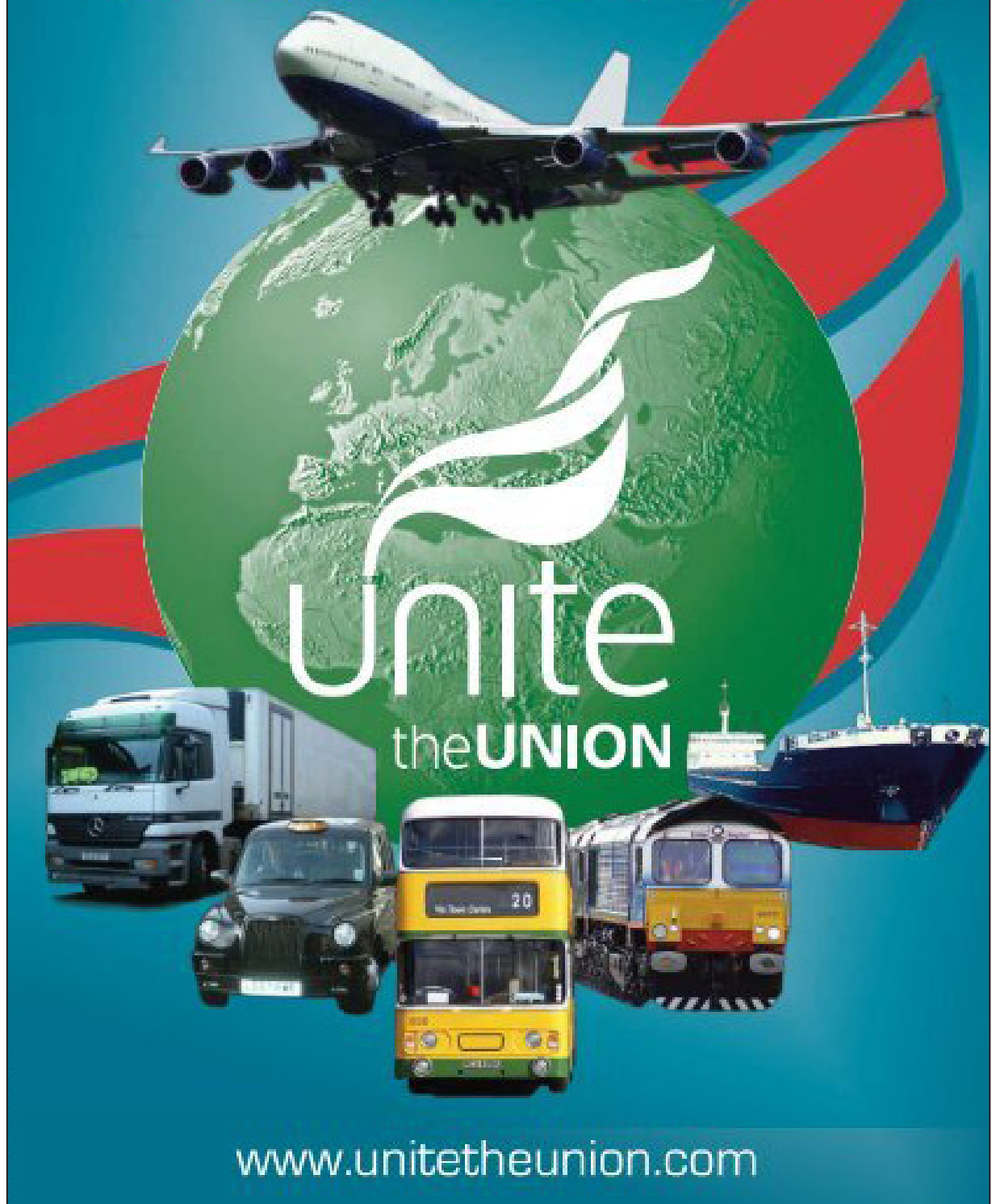


## Passenger Transport Sector – Response Q1 2021

- The National Officer for the Passenger Transport sector, Bobby Morton, has produced two sizeable pieces of work on how the climate emergency will affect this industry.
- Bobby produced a series of responses in Quarter 1 (Q1) of 2021 on the theme of 'How the Passenger Transport sector is dealing with the threats of the Climate Emergency'. These responses are highlighted below:
- The Passenger Transport sector will be one of the most affected industries in the decarbonisation process. The sector is recognised as a major cause of air pollution due to the carcinogenic particles in the fossil fuels used in petrol, diesel, and hybrid fuels. Carcinogenic particles from fossil fuels are cancer producing substances.
- The Passenger Transport sector wants a resilient recovery from the economic downturn caused by the COVID-19 pandemic. This includes a commitment to tackle the climate emergency. The resilient recovery will include:
  - Climate investments to support economic recovery and job creation.
  - A change in long-term behaviours towards Passenger Transport.
  - Make changes in the Passenger Transport industry to tackle the climate emergency.
  - Embed fairness as a core principle of Passenger Transport.
  - Ensure the economic recovery from COVID -19 meets the decarbonised agenda required for net-zero carbon emissions by 2050.
  - Fiscal changes in the industry should provide incentives for carbon emission reductions.
- A resilient recovery that meets the decarbonisation agenda will require extensive electrification of transport and heating. This will be supported by a major expansion of renewable and low-carbon power generation.
- The demand for energy will need to be reduced and can be achieved through the efficient use of energy and other resources.
- The development of a Hydrogen Economy could service demands for energy-dense applications in HGVs and ships and for electricity and heating in peak periods.
- Energy density relates to the amount of energy that can be stored per battery unit whereas power density relates to the maximum amount of energy that can be discharged per battery unit.

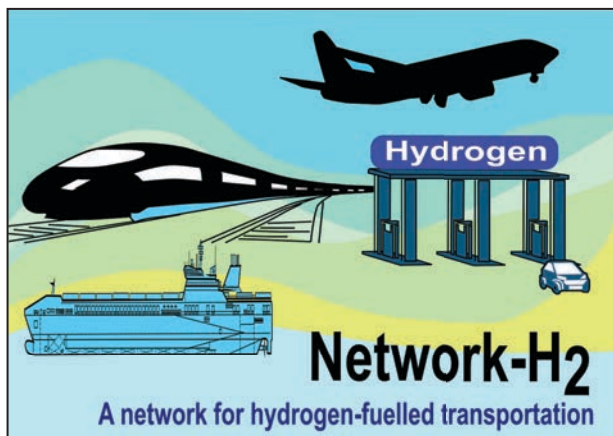


# SUSTAINABLE TRANSPORT AND THE ENVIRONMENT



■ The Passenger Transport Sector is also calling for:

- Business retrofitting to increase the energy efficiency of businesses.
- District heating. District heating (also known as heat networks or teleheating) is a system for distributing heat generated in a centralised location through a system of insulated pipes for residential and commercial heating requirements such as space heating and water heating.
- Local area energy plans and green building passports. A green building passport is the full record of a building, showing upgrades and improvements throughout its lifetime.
- A Green Building Passport will document performance, add value to an asset and go some way to ensuring our buildings are sustainable and perform to the standard intended.
- Network H2.
- EV Charging.
- Flood Defences.
- Circular Economy.



■ The Network for Hydrogen Transportation (Network-H2) has been set-up by UK Research and Innovation (UKRI) to maximise the impact of UK-funded research and innovation.

■ It is formed by a partnership between Durham University, Newcastle University, Advanced Propulsion Centre, Energy Systems Catapult, UK Department for Business, Energy & Industrial Strategy, UK Department for Transport, Connected Places Catapult, and the UK Hydrogen and Fuel Cell Association.

■ Since October 2019, it has taken a leadership role across the energy, marine, on-road, rail, and aviation sectors. The aim is to advance a hydrogen-enabled transport sector by focusing on eight cross-cutting themes.

1. The whole transport/energy system
2. Pathways to sustainable hydrogen production and distribution
3. Compact and lightweight on-board storage
4. Compact and lightweight hydrogen energy conversion devices
5. Lightweight electrified powertrains
6. Hydrogen compatible materials and safety
7. Multi-modal transport, logistics and autonomy
8. Policy, economics, and societal impacts





## Passenger Transport Sector – Response Q3 2021

■ The National Officer for Passenger Transport, Bobby Morton, provided the following responses to questions set by the Unite Environment Taskforce. These responses relate specifically to the bus industry within the Passenger Transport Sector.

### 1. How do you as the National Official see the future of your Sector / Industry / Companies?

### 2. What have been and will be the impacts of Environment/Climate Change policies on your Sector Industry / Companies?

■ Transport is a major cause of air pollution and is the main source of nitrogen dioxide (NO<sub>2</sub>) emissions. It accounts for around 24% of UK greenhouse gas emissions, with road transport and passenger cars, the most significant source of emissions in this sector. It is also the sector that has seen only a 2% reduction in emissions by 2015 since 1990. The current trend is for emissions to grow beyond 1990 levels.



■ Reducing greenhouse gases from transport emissions will play a major part in the UK government's commitment to achieving net-zero carbon emissions by 2050. This will not only require action to 'decarbonise' transport and develop emission reducing technologies, but it will also depend on persuading people to make travel choices that are less environmentally damaging. This will require investment, effective regulation, a smart procurement policy and better integration of all transport modes. A Just Transition for transport



### Zero Emission Bus in Brighton's Ultra Low Emissions Zone (ULEZ)

workers should be at the heart of sustainable transport strategies.

■ There are currently several government initiatives aimed at reducing carbon emissions in the bus industry.

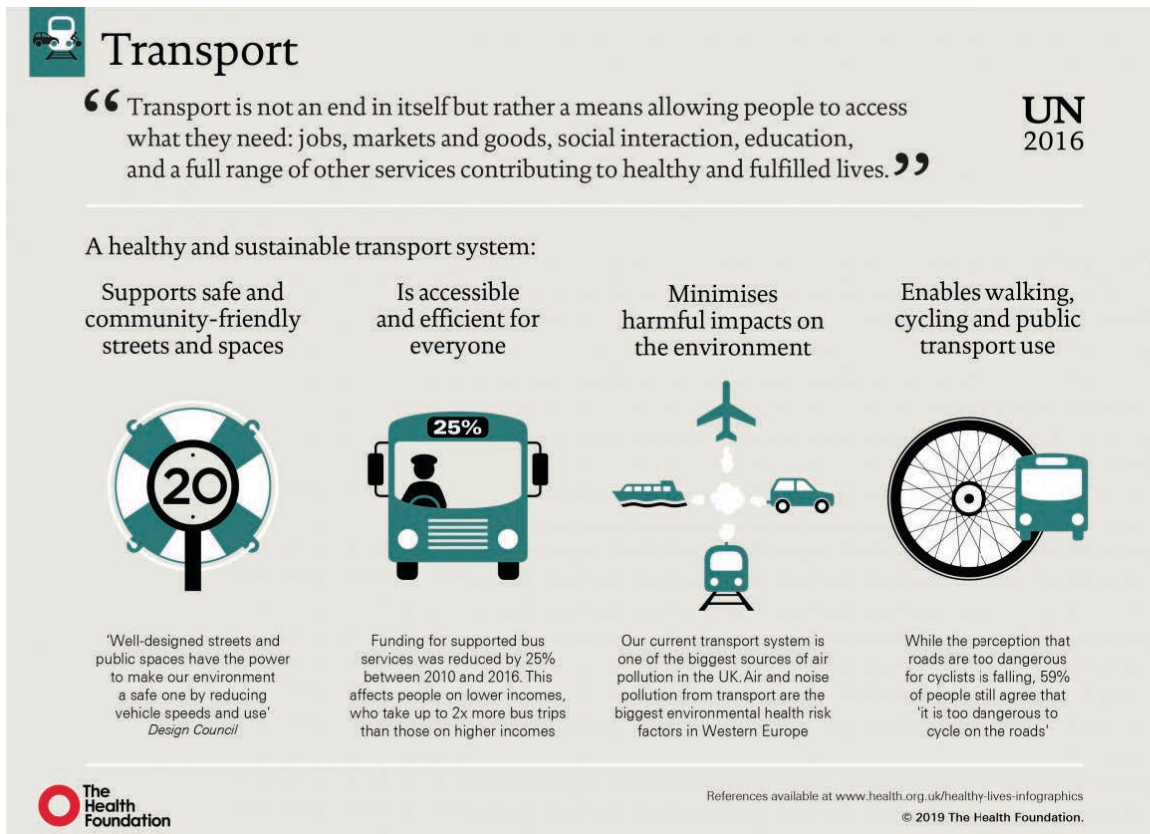
These include:

- Increased sustainable bus travel.
- The rapid development of autonomous technology for buses.
- Making public transport a more attractive alternative to car use through unified and simplified fares.
- The introduction of Zero Emission Bus Regional Area (ZEBRAS) and the roll-out of 4,000 Zero Emission Buses.

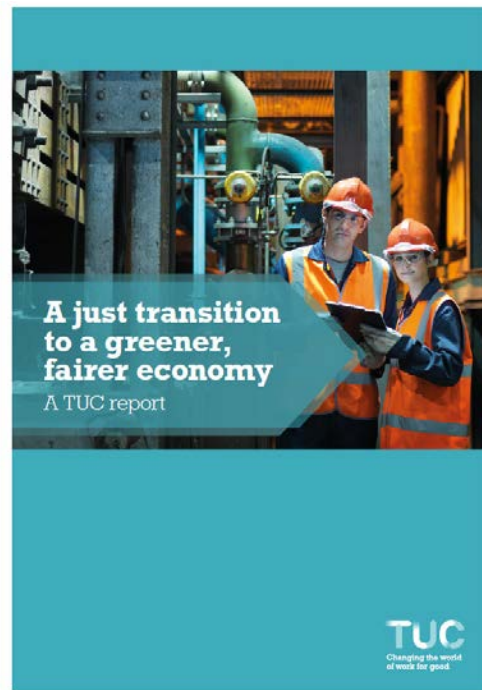
■ At this stage, it is too early for us to assess the risks or material benefits of these initiatives. As the largest union in the automotive industry, Unite fully supports a Just Transition to electric and alternative powered passenger transport. This transition will require significant public investment in electric charging infrastructure, related energy utilities, and positive vehicle procurement. Within the industry, workers must be supported to re-skill and up-skill.

■ Unite welcomes the potential for hydrogen powered vehicles but notes issues around the source of hydrogen if extracted from natural gas. Plans by several natural gas distribution networks have been centred around using carbon capture storage technology. Investment is needed to support research into technology that reduces the pollution effects of transport.

- The UK Government's procurement strategy must be transparent and supportive of UK industry. Contracts must include social impact clauses and ensure fairness for British based manufacturing and their supply chains.
- Sustainable transport requires proper planning and unions must be included at all stages in the planning and delivery process. Unions will be supported by the statutory rights for training and facility time for all trade union representatives that are dealing with environment issues in the workplace.
- Transport decisions must be taken in consultation with institutions that reflect the wide range of transport interests. These include passengers, community groups, unions, operators, local authorities, walking, cycling and environmental groups.
- Vehicles must be designed to prioritise safety, accessibility, and the protection of the environment. Accessibility is not only about vehicle design. It is also about bus drivers having the time to pull up close to the kerb at bus stops, and to wait until passengers sit down before they move off. When buses are scheduled for maximum profits, these needs are ignored.
- Buses are the most utilised mode of public transport. Deregulation has given rise to a fragmented and expensive bus provision. Bus travel has been steadily decreasing in recent years. Despite this, the National Audit Office predicts that 'bus travel will remain the primary and essential mode of transport for many people'. This is especially the case for the most disadvantaged in society.
- The Campaign for Better Transport highlighted that funding in 2019 in the bus sector was around £400 million a year lower than it was a decade ago. Around 3,000 local authority supported bus services have been reduced or lost.
- In London alone in 2018, 48 socially desirable bus routes were cut. This left those who relied on these buses with no alternative equivalent public transport option.
- The Unite Passenger Transport sector calls for investment in new electric bus fleets. Bus routes should be restored and maintained to create an affordable and accountable integrated transport service which is sustainable into the future.



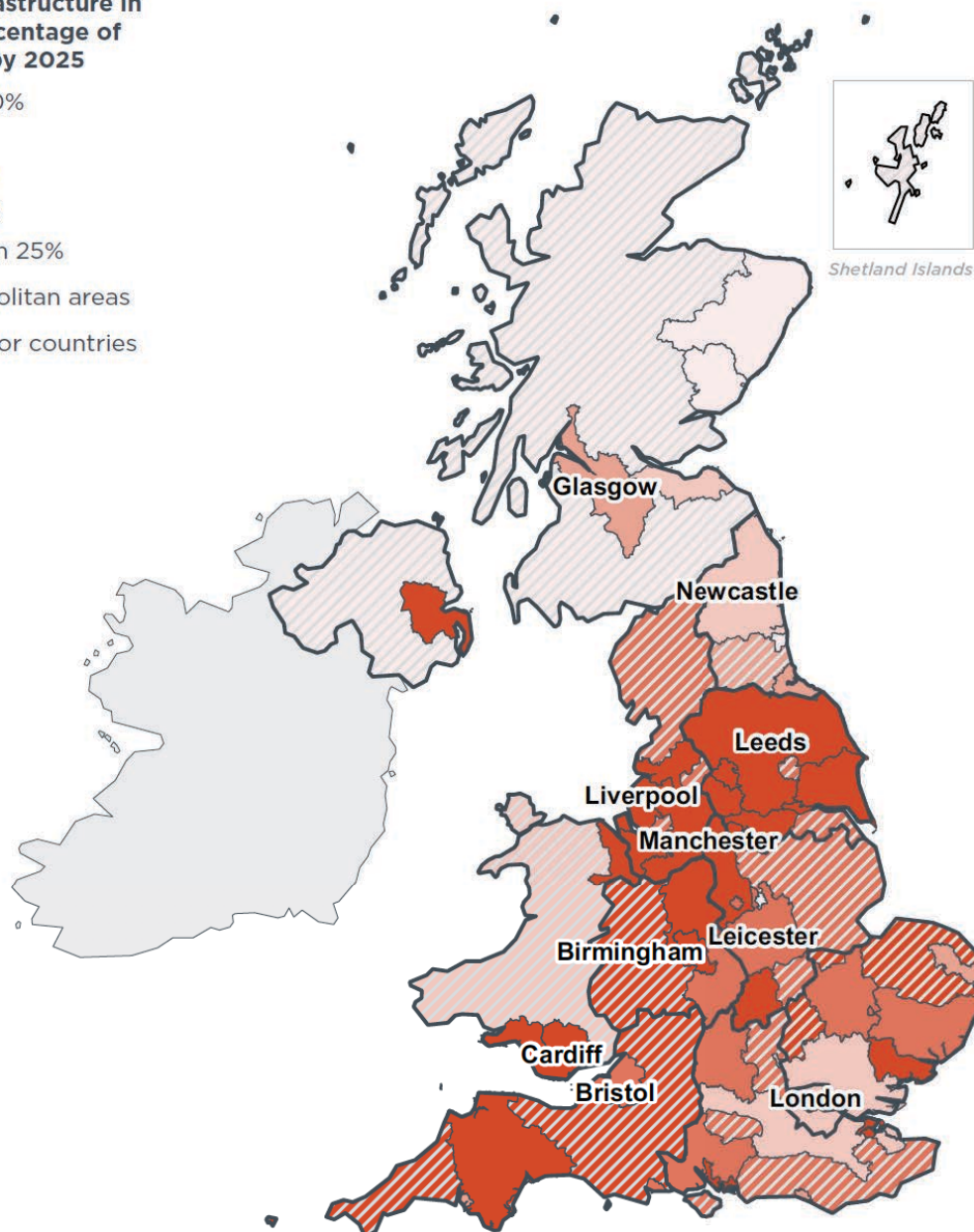
- Electrification of bus fleets is essential because 'it improves air quality by replacing dirty diesel engines. It allows for quicker breaking and acceleration, in turn increasing capacity on those lines and materially improving journeys for passengers.
- Unite is concerned over the lack and underinvestment of electric charging infrastructure. We need significant public investment in electric charging infrastructure and related energy utilities to sustainably support the transport industry.
- This will help achieve the long term social and environmental goals alongside economic growth.
- Unite has been active in making the case for a 'Just Transition' in tackling the climate emergency. Unite welcomes and contributes to the principles developed in the TUC's statement on Just Transition. These are:
  - A clear and funded path to a low-carbon economy.
  - Workers must be at the heart of delivering these plans.
  - Every worker should have access to funding to improve their skills.
  - New jobs must be decent jobs.
- There is a clear international dimension to dealing with the global climate emergency.
- Unite is working with the International and European Transport Workers' Trade Union Federations (ITF and ETF) to promote a coordinated approach to sustainable transport initiatives across countries. This includes the 'Our Public Transport Programme', 'Climate Justice' and 'Trade Union Vision on Sustainable Transport projects'.





### Charging infrastructure in 2019 as a percentage of that needed by 2025

- Less than 10%
- 10% to 15%
- 15% to 20%
- 20% to 25%
- Greater than 25%
- ▨ Nonmetropolitan areas
- UK regions or countries



**Figure 6.** Percentage of charging infrastructure installed as of 2019 relative to what will be needed by 2025 for electric vehicle shares increasing to 70% of new vehicles by 2030.



# PART THREE

## Summary of the Environment sessions delivered by the Unite Environment Taskforce to the Unite National Industrial Sector Committees, Regional Industrial Sector Committees and Regional Committees

- Barry Faulkner is the Unite National Political Education Coordinator, and a member of the Unite Environment Taskforce. Since July, Barry has delivered discussion sessions on the environment to several of Unite's National Industrial Sector Committees (NISCs) and a Regional Committee.



- In July, Barry delivered sessions to 8 NISCs and 1 Regional Committee. These were:

### NISCs:

- Education
- Engineering, Manufacturing & Steel
- Finance & Legal
- Food, Drink & Agriculture
- Graphical, Paper, Media & IT
- Government, Defence, Prisons & Contractors
- Health
- Services Industrial Sector

### Regional Committees:

- North East, Yorkshire & Humber

Here are some of Barry's findings from the above sessions.

- All the sessions have been delivered through a 15-minute lead off by Barry on why the subject of the environment is important to Unite, and what Unite is doing about environmental issues in the workplace.
- The sessions then progress to an open debate on environmental issues from a trade union perspective. The open debates have ranged from 30 minutes to 90 minutes.



- There has been one exception to this rule. For the Food, Drink and Agriculture NISC, the session took place through a joint delivery with Barry and Emily Scurrah (above). Emily is a member of the Unite Environment Taskforce.
- Barry has chosen not to use presentation slides, documents, or films in these sessions but has forwarded committee members a link to a short film that the Unite Environment Taskforce has developed. The film explains the importance of tackling the climate emergency from a trade union / Unite perspective. All of Barry's contributions have reinforced our "Strategy for Growth", featuring organising around our "Work, Voice, Pay" campaign.



**Unite Engineering, Manufacturing and Steel sector**

- The vast majority of NISC sessions delivered by Barry have resulted in engaged discussions with committee members and activists on the theme of the environment and trade unions.

### Finance and Legal NISC:

- This committee has put forward a motion to Unite's Policy Conference which takes place from 17 -22 October 2021. The motion is asking for major employers in the Finance and Legal sector to adopt environmentally friendly and ethical investment strategies.

### The Food, Drink and Agriculture NISC:

- This committee raised the issue of environmental contradictions within the sector and suggested that forming alliances was one way to overcome these contradictions. An alliance that was mentioned during the debate was with the Soil Society.
- The committee raised the issue of inequality within the sector, highlighting that marginalised groups are often the victims of any industrial changes.
- These changes can cause economic inequalities for some workers, resulting in an inability to fully engage with the decarbonisation agenda.

### The Health Sector NISC:

- A key debate for this committee centred on the issue of procurement strategies, and how Unite can influence the shortening of supply chains.
- The committee were vocal in their support and endorsement for the work undertaken by Unite in relation to public health.

### All NISCs delivered to:

- The issue of greenwashing was raised by all the NISC committees. It was identified that employers would not miss an opportunity to make workers' pay for any changes in their industry. This includes changes in industry to achieve net-zero carbon emissions.

- It was noted by all NISCs that the implications of COVID-19 and the Climate Emergency has led to employers making changes to their operations. It was felt that these changes had been both positive and negative for members. It was highlighted that increased homeworking, due to the COVID-19 pandemic, had placed some workers in a difficult working environment causing physical and mental health problems.
- There was a universal agreement by the eight NISCs that Barry spoke to, that worker's voices need to be at the heart of discussions around the transition to green economic models. Unite's Green Manufacturing Strategy was discussed with all the NISCs. This strategy was constructed by lay activists within Unite's manufacturing sector and has produced 7 'shovel ready' green manufacturing projects.
- Several NISCs also raised the point of developing local economic initiatives which were based on the wealth of experience and talent in local economic communities.



- The green agenda was recognised as being an important organising vehicle for Unite. It is recognised as providing a great opportunity to appeal to a younger demographic that may already be members or for recruiting new young members. The green agenda particular appeals to the younger membership cohort.
- The NISC sessions identified a keen interest in the education programmes that Unite are developing on the environment as well as attending the two Environment conferences that are taking place this year. There was a general recognition that education courses on the Environment and raising awareness of environmental issues from a trade union perspective, are vital tools for engaging members on the subject.
- This could be further supported through initiatives with sister unions, local and national politics, and civil society campaign groups.

### North East, Yorkshire and Humber Regional Committee:

- Barry identified that there was a fantastic level of engagement with the attendees at this Regional Committee. As a result of the discussion with this committee, one of the attendees contacted their employer and asked for a meeting with them to discuss the procurement policy for transportation in their local authority.

### Overall Conclusions:

- The sessions to the NISCs and Regional Committees have been an important vehicle for promoting the work of the Unite Environment Taskforce. The discussions have identified that Unite Reps and Activists are already engaged with their employers about environmental issues in the workplace and how Unite can help the employers respond to this.
- The work currently being undertaken by Unite's reps and activists, supported by Unite officers, provides a good foundation from which Unite can influence and address this hugely complicated subject.





## The Community Youth Workers and Not for Profit (CYW & NFP) NISC:

- This session was delivered by Jim Mowatt, Convenor of the Unite Environment Taskforce. From the discussions in this NISC the following key points were identified:

### Youth Membership – (CYW & NFP NISC:):

- The COVID-19 outbreak has resulted in a relatively high unemployment rate for young workers (16-24), compared to workers in other age profile groups’.
- Many young people seeking employment had a deep passion for the Just Transition agenda. Once in the workforce this could provide them with the opportunity to drive forward the Just Transition agenda in the workplace.
- It was felt that the Just Transition agenda could become a focal organising theme for Unite to increase membership, particularly in young members.
- It was recognised that the Climate Emergency will negatively affect the CYW & NFP sector.



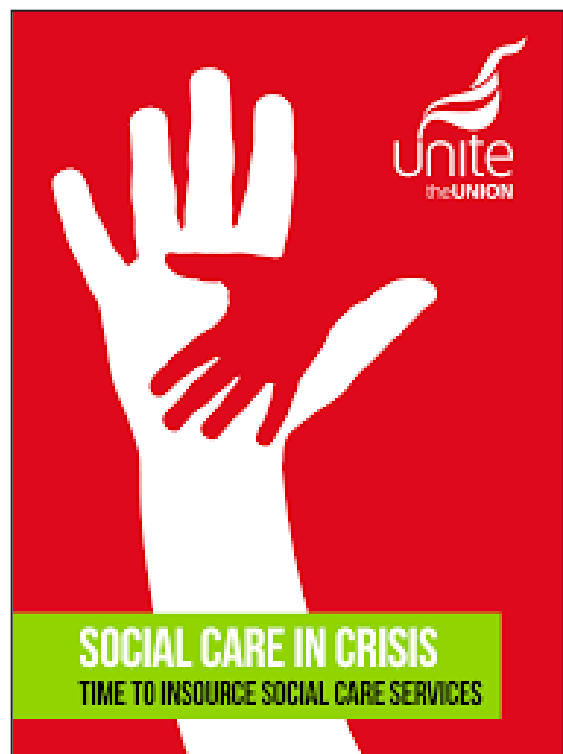
**Unite members organising around a Just Transition**

- The NISC felt that they, along with other NISCs within Unite, could play an important role in spearheading the Just Transition agenda. It was agreed that we cannot rely on the UK Government to deliver a Just Transition for the UK workforce.

- Retrofitting, especially in social housing, will require a large-scale skilled workforce and imaginative financial packages. These are central to Unite’s Green Jobs and Green Skills campaigns.

### Social Care Sector – (CYW & NFP NISC:):

- It was identified that there were currently 110,000 vacancies in the Social Care Sector. The sector suffers from a chronic understaffing, and those that are employed in the sector are often overworked and underpaid.
- Any Just Transition should ensure that pay and Terms and Conditions in the Social Care sector are improved.
- It was recognised that decent pay and decent work (i.e. good Terms and Conditions) are an essential part of a Just Transition, and ought to be prioritised in our Organising Campaign as being of strategic importance.





## The Environment and Just Transition – (CYW & NFP NISC:):

■ From a Trade Union perspective, a Just Transition is the main strategy for addressing the climate emergency. This was expanded on during the delivery of this discussion session with the CYW & NFP NISC. Discussion points from the session are listed below:

- Our Young People will ask us what we did as individuals and as an organisation in addressing the Climate Emergency.
- CYW & NFP has Unite members across a number of industries within the Sector.
- The subject of Just Transition affects everyone within all life cycles and across the globe. We are pulling together all strands of the union, including Regions, Sectors, and Industries. We are explaining what we mean by Green Jobs.
- We cannot let the history of poor and draconian planning of the 1980's be repeated. Such as the closure of coal mines and the drastic reduction of steel jobs' which resulted in a number of communities being left desolate to the current date. Destroying communities is not the way to implement a Just Transition. We must ensure that we have a say, and a seat at tables.
- This is a cross Sector discussion.
- We must build up the momentum and movement ahead of COP 26 and beyond.
- We are all responsible.
- The work undertaken is strategic and we must all become engaged and active.

## Discussion concerning the film: – (CYW & NFP NISC:):

■ The film is not inclusive of all the arguments.

■ The film is 224 seconds long. It is not possible to include all angles on the Environment debate in such a short film.

■ It was agreed that the industry sector must avoid Greenwashing.

■ Greenwashing, waters down the issues and concerns which relate to the environment. This includes all aspects of life not just jobs and economics.

■ The subject is a number one issue for society nationally and internationally.

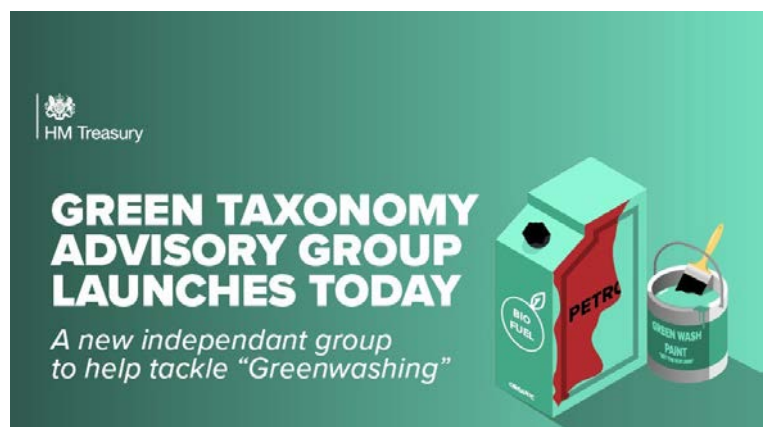
■ The issue is constantly changing. So is the focus of the subject matter. As a trade union we must focus on our members' fears and ambitions. This includes jobs, pay and security. These are all areas that have most purchase in relation to a Just Transition.

■ The Care Sector is important, as is the NHS. As are all other Sectors and Industries regarding the climate emergency.

■ It is impossible to showcase and be inclusive of all interest groups and arguments in the production of the film.

■ The future of jobs and the creation of Green Jobs affects all our members. These are the big issues that the trade union must concentrate on in relation to the climate emergency.

■ The approach of the Just Transition Project is to bring together all Sectors to carry forward our membership in the fight against the climate emergency.



**The Green Taxonomy Advisory Group was launched by the UK Government in June 2021 to tackle Greenwashing**

## Report from Steve Craig (Unite National Development Officer) on the NISC and RISC discussion sessions relating to the climate emergency and Just Transition:

### Introduction:

- The following report was compiled by Steve Craig (National Development Officer for Unite). The report is based on the NISC and RISC sessions that Steve has delivered in Quarter 3 (Q3) of 2021.



**Steve Craig:  
Unite National  
Development  
Officer**

- On behalf of the Unite Environment Taskforce (UET), sessions have been delivered to the following meetings/committees in the Quarter 3 period:

- The Northwest Construction Regional Industrial Sector Committee (RISC) (40 minutes)
- The Passenger Transport National Industrial Sector Committee (NISC) (30 minutes)
- The Energy & Utilities (NISC) (25 minutes)
- The Automotive NISC (35 minutes)

### Features in the UET Film & PowerPoint presentation shown to Reps & Activists in the NISC & RISC sessions:

- All sessions were delivered via the Zoom platform and supported by the showing of the UET film and presentation of a set of PowerPoint slides which showcase and briefly headline:

- The establishment and timeline of UET activities to date.
- A focus on the climate emergency, the environment and 'Just Transition'.
- The development of a Unite Environment Taskforce Charter.
- Reference to the 'convergence of challenges and issues facing the union including post Brexit developments, climate emergency, the COVID-19 pandemic and the increasing use of Artificial Intelligence (AI) and automation and digital interventions across sectors.
- A forecast of forthcoming initiatives, activities, and events of interest to members:
  - The work of the Unite Education department, the design and drafting of course materials and the development of a variety of online/offline learning pathways for members and Unite Reps.
  - Development of Unite's Learn with Unite website and capacity building of our environment landing page and the uploading of an extensive suite of resources, publications, and materials which members/Reps can access at their own convenience.
  - Sharing 'best practice' examples and experience across various Unite trade group sectors.
  - Identifying how we integrate key topics such as learning and skills, apprenticeships, job protection, equality and inclusion, collective bargaining, recruitment and organising.
  - Identifying the key principles underpinning Unite's approach and engagement of climate emergency and Just Transition issues.

## Feedback received for UET Film and PowerPoint Presentation:

- There were some issues encountered at one meeting with streaming the UET film, but this was overcome by providing a hyperlink to the film for members to review the film in their own time.
- The UET film was very well received by all those attending the meetings and supportive comments were made about the professional quality and content of the film which colleagues' thought was of the right length, 'pitched at the right level, and accessible enough for it to be used as a very useful awareness raising tool.
- Several comments were made about how the film would be disseminated across the union and this provided the opportunity to inform all the committees that the film would also be made available via various social media platforms such as Facebook, Twitter and would also be available for streaming via the Learn with Unite (LwU) website. The UET film is one of a suite of films being produced by the Education Department and which will be released at intervals as the work of the UET progresses.
- Following the showing of the UET film and PowerPoint presentation all sessions opened for a Q&A discussion, and input from NISC members and National Officers. A selection of the many observations, comments and questions will now follow.

## Subjects covered in the Q&A discussions following the UET Film & PowerPoint Presentation:

- The role of the nuclear sector in a mixed energy policy approach.
- The central role energy (of all forms) will play in future developments and current initiatives around gigafactories and battery storage; hydrogen (in its various colours and sources).
- Requests for further information about COP 26 and Unite plans for engagement and involvement in the COP process/event in November 2021.
- The cost of raw materials (and the finite nature of some materials) and the impact of their extraction, distribution and use and the need to explore alternative sources of materials.
- Issues of potential 'social dumping' and a need to ensure that 'Just Transition' was underpinned by the trade union concepts and values of equality, diversity, and inclusion.
- Recognition of the need to avoid and not repeat the experiences of what happened to the mining industry and mining communities.
- The cost of energy and the need to avoid fuel poverty and explore community energy.



## Unite Energy and Utilities Sector



■ The need for a major roll-out of EV charging points and support for the Automotive sector are required to offset potential large scale job losses.

■ These job losses could arise from the UK government's decision to ban the sale of new petrol, diesel and hybrid vehicles in the UK from 2030. This is because less labour is involved in the production of electric vehicles.

■ The need for the union to engage with government, the public and private sector to ensure 'workers voices' are heard. It is imperative that Unite uses its leverage and influence to have a 'seat at all of the tables' where policy and decisions are taken that affect our members.



**Jaguar Land Rover (JLR) Electric**

■ The need to develop strategic sectoral plans to address the many issues, challenges, threats, and opportunities involved in addressing the climate emergency and Just Transition.

■ There was also reference made to the need to recognise that some sectors were likely to be impacted more negatively than others. So, enhanced support for these sectors is necessary.

■ It is important to stress the need for solidarity to ensure 'no one is left behind'.

■ The role of 'green finance' for investment and compensation for impacted workers/industries and the need to explore the system of current pension and tax investments/incentives to support decarbonisation and green agenda initiatives.

■ The 'Green Manufacturing 7 Shovel ready projects' were discussed, alongside reference to other government, industry and company initiatives and publications.

■ The role and differing approach of the various devolved nations was highlighted. It was identified that this was both innovative but also disjointed.

■ Collectively across all committees there was criticism of the incompetence of the Conservative Government and an awareness of the role of 'greenwashing' as companies looked to re-position themselves to secure market-share and green finance. The transition of fossil fuel companies to 'energy' companies was also highlighted as an example of this phenomenon.

■ There were calls for Unite to enhance its partnerships with Local Authorities, community and climate change groups and focus on direct employment, public ownership and progressive models of recycling/upcycling and repurposing of industrial sectors.

■ Members believed that the Government were not best placed to handle the climate change crisis – given their woeful record of managing the COVID-19 pandemic. Members supported engagement with external agencies and partners to create a greater force for building back fairer going forward.

■ The 'physical geography' and industrial make-up of different regions was highlighted as were issues associated with young people/an ageing workforce; community engagement and the need for 'green jobs to be decent jobs, well paid and unionised jobs'.



**Nissan Electric Vehicle factory in the North East**

- All committees wished to be kept up to date with the developments of the Unite Environment Taskforce and the environmental courses being developed by the education department.
- There were also specific sectoral issues raised in discussions and 'there was an interest in the Unite Environment Conferences being held in September 2021 and later in the year.

## Summary of NISC & RISC Presentations:

In summary, the UET initiative and Education Department activities were recognised as both timely and essential. It was apparent that all committees recognised the need for Unite to act now given the potential impact of climate change at an industrial, political, economic, health and societal level.



**The importance of gigafactories / battery storage and hydrogen energy to the Automotive**



**Vauxhall have committed to building electric vehicles at their Ellesmere Port plant**

# PART FOUR

## Appendices

### APPENDIX 1

	Cluster	Applied Outcome
Resource Management	1. Energy Efficiency	1.1 Reduce energy Use 1.2 Maximise alternative energy resources
	2. Water Efficiency	2.1 Reduce water use 2.2 Increase alternative water supply
	3. Material Efficiency	3.1 Optimise material flow and usage 3.2 Manage inventory and procurement
Emission Management	4. Control and Reduce Environmental Flow	4.1 Implement and apply waste management hierarchy 4.2 Handle, store, treat and dispose appropriately 4.3 Prevent ground water and/or land contamination
	5. Carbon Emissions	5.1 Account for carbon emissions 5.2 Reduce carbon emission
Improved Environmental Management Practices	6. Effective Environmental Management System	6.1 Enhance auditing and environmental monitoring performance 6.2 Comply with environmental systems
	7. Environmental Decision Making	7.1 Implement industrial clustering & resource pooling 7.2 Undertake risk assessment (environmental & business) 7.3 Identify, develop and implement business cases for sustainability improvement
	8. Continual Environmental Improvement	8.1 Lead environmental management initiatives 8.2 Innovate for environmental improvement (including process optimisation)

### A Sustainable Manufacturing Strategy

Source: [https://www.researchgate.net/figure/Sustainable-manufacturing-framework-SMF-Note-there-are-170-capabilities-under-these\\_fig3\\_270851585](https://www.researchgate.net/figure/Sustainable-manufacturing-framework-SMF-Note-there-are-170-capabilities-under-these_fig3_270851585)



## APPENDIX 2

### Colin Potter's (Unite Researcher) notes from TUSDAC meetings in the first half (H1) of 2021

TUSDAC Meetings are normally bi-monthly but in 2021 we have met more frequently than this. In January the discussions, to start the year off, were around the Glasgow COP 26 talks that had been postponed due to the pandemic and UK lockdown from November 2020. The discussion focused on how TUSDAC could gain access to the COP 26 talks to provide support for the call for a Just Transition.

The January discussions also included an introduction to and preparations for a meeting with officials from the Green Jobs Taskforce on the 12th of February. The Green Jobs Taskforce includes Paul Novak from the TUC and Sue Ferns Senior Deputy General Secretary from Prospect, as chair of TUSDAC. The Green Jobs Taskforce was launched in November 2020.

The Green Jobs Taskforce was tasked with looking at the skills required to drive a green economic recovery from COVID-19 and to meet the UK Government's target of net zero carbon emissions by 2050'. From a trade union perspective, there was keen interest in identifying whether the jobs in the green economy would be decent well-paid unionised jobs that were open to all members of society. The Green Jobs Taskforce was also tasked with discussing how a Just Transition from a high carbon sector to a net-zero carbon sector will be achieved.

The Green Jobs Taskforce's website contains information on free education courses, up to Level 3 qualifications. The courses are aimed at providing green skills for the green jobs that will be required in a net-zero emissions economy. These green qualifications include green apprenticeships endorsed by the Green Apprenticeship Advisory Panel (GAAP):

<https://www.gov.uk/government/groups/green-jobs-taskforce>

The January meeting also included a presentation by Dr Jo Cutter and Dr Vera Trappman (Leeds University / CERIC) who presented their national workers survey "The Worker Voice in Just Transitions to a low-carbon economy". It was hoped that this survey would result in a report to be published in March 2021. The report would have a focus on specific sectors and regions.

**"Intent must shift to action if we're to get the right people and skills in place to deliver on climate goals."**

**Rhian Kelly**

Director at National Grid and  
Member of the Green Jobs Taskforce



The TUSDAC meeting in February was a round table meeting and included some of the officials from the Green Jobs Taskforce. These officials provided more details of the work of the Green Jobs Taskforce and how it was set up to deliver the government's 10-point plan to tackle the climate emergency. The government hoped that the Green Jobs Taskforce would help to support the delivery of 90,000 green jobs across the UK in the short term and 250,000 green jobs across the UK by 2030. The government had announced a £5 billion support package to help kickstart a green economic recovery, with the hope that this would encourage further investment from industry and investors to the sum of a further £12 billion.

One transition that was discussed in the February meeting was that of the oil and gas sector. It was recognised that the transition in the oil and gas sector required the production of more windfarms and the better maintenance of existing windfarms. Windfarms are designed to last between 20 and 25 years. Between now and 2050 all existing windfarms, and some of the yet to be installed windfarms, will need replacing and expanding. It was also noted that there would continue to be jobs on oil rigs to monitor the storage of CO2 from Carbon Capture Utilisation and Storage (CCUS) pipelines and to produce hydrogen using deep sea windfarms.

In the TUSDAC meeting in March 2021, the topic of discussion was on emerging themes from the Green Jobs Taskforce, together with the International Trade Union Confederation's (ITUC) priorities for COP26. This included the pre- COP "Bonn" talks that were occurring in late May /Early June.

The May 2021 meeting included discussions on COP 26 preparation updates. The discussions highlighted the possibility of the event becoming a virtual event, with the UK Government considering making it an open event for all those interested in attending. Members of TUSDAC were informed that IndustriAll had suggested that they would have very limited numbers available to attend the event due to the pandemic and capacity restrictions at the venue. Quarantining requirements would be a major headache for some nations. These nations had already said that they were unable to attend as they could not afford to enter Scotland and quarantine for two weeks before the event started, as the event itself lasted for 2-3 weeks.

It was reported that Francis O'Grady will be speaking at the opening plenary session of the Bonn Pre Cop Talks. There was some more discussion about the work of the Green Jobs Taskforce, especially regarding union reps, activists, and members engagement on the climate emergency and Just Transition.

Each member of TUSDAC was asked to give a preview of the work we are doing within our organisation. Unite (Jim Mowatt and I) presented a video and an update on the work of the Unite Environmental Taskforce, with details of our plans for a portfolio of education courses on the Environment. Similar verbal updates were provided from the UCU, FDA and the TUC.

Colin Potter, July 2021.

## APPENDIX 3

The future of the Aerospace & shipbuilding sectors given the impacts of climate change  
Background Briefing, July 2021

### Background and Introduction

While the impact of climate change will be substantial on both these sectors, we will concentrate here chiefly on the commercial Aerospace sector. The commercial Aerospace sector is taking steps to reduce transport emissions as it aims to achieve net zero carbon emissions by 2050.

A lot of these environmental impacts will be reflected in the Shipbuilding sector, which, is largely driven by the Ministry of Defence (MOD) procurement.

The UK Aerospace sector is a vital export earner with around 90% of its jobs located outside London and the South East. Commercial Aerospace is central to the success of our nation's economy, with over 110,000 people directly employed in the sector and about four times this number employed indirectly. Strategic players in the UK sector include Airbus, Rolls-Royce, Bombardier, GKN, Collins Aerospace, GE, and Leonardo.

The UK Aerospace sector is the second largest commercial Aerospace sector in the world. It has been built through the highly skilled workforce and high value jobs that we have in the UK Aerospace industry. The average annual earnings in the UK Aerospace industry is £43,000. This is 45% higher than the UK average earnings in all other industries per annum.

The sector has come under great strain due to the COVID-19 pandemic. This has massively reduced global flying activities leading to the cancellation and/or postponement of aircraft orders. With our aircraft manufacturing/servicing base under great threat, we must do all we can to secure/strengthen this vital sector, whilst also ensuring its green credentials are continually enhanced. In other countries such as France and the US, governments are significantly more supportive of their Commercial Aerospace industries.

Prior to the pandemic it was forecast that demand for new commercial aircraft was strong and that approximately 36,800 jets would be delivered globally over the 2017-2036 period. The demand at the UK level has seen substantial sums spent on research and development with £1.5 billion being spent in 2017 alone; with 67% of this funding coming from businesses own funds. In the same year the UK industry attracted £2.7 billion in private sector investment. In July 2020 it was announced that the UK Aerospace sector was to benefit from £400 million of funding to help it go green.

### Environmental implications and considerations

As we enter a new decade it's clear that societal attitudes towards the Environment, Climate Change and Sustainability are changing and changing fast. In 2019, addressing the climate emergency became a widespread issue. There was a determination to reduce the use of single use plastics, and school children took to the streets across the world in school strikes, to demand politicians protect their futures by addressing the climate emergency.



In June 2019, the Biannual Air Show in Paris included the Aerospace industry's biggest names gathering to showcase their products. This covered the spectrum of aviation from airframes to airport equipment, engines to education, and materials to maintenance.

The underlying theme was sustainability. Given the aviation industry accounts for 2% of man made CO<sub>2</sub>, it is hardly surprising that tackling the challenges of the climate emergency have risen to the top of the sectors agenda. This is evidenced by the signing of a decarbonisation declaration by some of the industry's biggest and most influential players.

As momentum gathers, the focus will undoubtedly shift to the regulatory framework, with tighter controls on emissions forcing manufacturers to challenge the norm in search of greater efficiencies.

The key to unlocking the potential to address the climate emergency requires the Aerospace sector to embrace 'digital technology' to find solutions. This includes the use of more sustainable/lighter materials to reduce weight, coupled with design innovation for greater fuel efficiency/fewer emissions, along with the use of greener fuels.

The mass movement of people by air travel is reliant on the burning of hydrocarbons (fossil fuels). It's calculated that "The carbon footprint from burning fossil fuel is the fastest growing part of humanity's global ecological footprint – accounting for 60% of the total". This is simply unsustainable if the world is to meet its target of keeping the global average temperature rise to below 1.5C above preindustrial levels.

Between 2006 and 2018 air traffic passenger demand grew at an average rate of 5.9% per annum. This is set to continue, with estimates suggesting air passenger numbers doubling to 7.2 billion passengers by 2035 from the 3.8 billion in 2016. If we are to achieve the ambitious environmental goals set by the Advisory Council for Aviation Research and Innovation in Europe (ACARE), under its flightpath 2050 vision, then the development of new technologies to create cleaner, quieter, and more efficient aircraft is essential.

The environmental impact of aviation should not be viewed as one dimensional but rather seen in a more holistic approach from design, manufacture through to operation and disposal. If the EU's proposal for zero emissions by 2050 is to be realised, then continued support of research and development programmes is required. The Clean Sky and Clean Sky II research programmes, along with Single European Air Traffic Management Research (SESAR), will need to be carried out in collaboration with stakeholders from business, academia and research institutes.

The Clean Sky's projects are helping to dramatically reduce the air industry's CO<sub>2</sub>, other emissions and noise footprints. This is achieved by developing new engine architectures, improved wing aerodynamics, lighter composite structures, smarter trajectories, and more electrical on-board energy. As the Aerospace industry moves forward, the importance of digital technology should not be underestimated. This will include Artificial Intelligence (AI), automation, machine learning, data analytics and electrification.

There will undoubtedly be many challenges for unions and for society from these technological advances that digitalisation brings.

If we are to reduce the negative impact on our planet from aviation, then new technology will need to be embraced while continuing to ensure regulatory protections are in place, not just for the environment but also for the safety of all those concerned.

Since 2005, the UK aviation industry has invested over £22 billion in green technologies and reduced its emissions by 3.5%. With passenger numbers increasing year on year more investment and green technology is needed to provide even greater fuel efficiencies.

The first jet aircraft entered service in 1952 and while aircraft emissions were not on anyone's radar back then, technology has quickly evolved. Between 1960 and 1990 fuel burn per passenger / kilometre has reduced by 50%.

One area that has seen ongoing research within the aviation sector is Sustainable Aviation Fuel (SAF). Whilst biofuels have been around for over a decade, they are still considered a work in progress, rather than a viable option now. This is for several reasons, but primarily, the conversion process of biomass to kerosene is very intensive and not commercially viable. Additionally, depending on the biomass used, actual overall emissions may in fact increase. Sustainable Aviation published a report on this subject in February 2020.

Airbus has the ambition to develop the world's first zero-emission commercial aircraft by 2035. Hydrogen propulsion will help deliver this ambition. Their ZERO programme enables them to explore configurations & hydrogen technologies that will shape the development of their future zero-emission aircraft.

Another area of intense research is electrification. While electrification will provide opportunities, the characteristics of flight also present significant challenges that need to be addressed before the mass movement of people via electric aircraft becomes a reality. Electric flight is not a new idea. The first all-electric flight occurred in 1973. It's true that some large modern aircraft are now more electric, but we're still twenty years away from long haul flights via total electric propulsion.

A more realistic prospect in the mid-term is a hybrid solution. This would involve the increased use of electric generators and motors combined with an energy storage system such as battery power. These would be used during flight and for different phases of flight, driven by a conventional jet engine, to provide some electrical propulsion.

Electrification presents great opportunities to reduce CO2 emissions. It also has the potential to reduce noise which could open the option of new airports being built in heavily populated areas.

## Conclusions

As demand for more efficient/faster travel, over greater distances, grows, so do the challenges of balancing industry growth and environmental impacts. The demand for air travel was growing year on year before the Covid-19 pandemic disrupted air travel from 2020.

Developing countries such as India and China are geographically large. It is likely that regional travel in India and China will increase as both nations become more prosperous. Because of the population sizes in India and China, global regional air travel could have significant impact on the environment. Therefore, it will not only be long-haul flights that have significant impact on the environment. 'Today, 'less than 4% of regional trips are completed by air'. If regional travel increases, then the global airport network will also be radically different from today.

Research and Development into materials, design integration, biofuels, and carbon offsetting, will have an important role to play in the decarbonisation of air travel. To achieve the 2050 objectives on emissions, including decarbonisation and improved air quality, air travel requires radical change from how it is today. This will include the electrification of air travel.

## What are the concerns?

Opponents say they don't boost employment overall, and there is evidence that Freeports and free zones don't create new economic activity but rather relocate existing work from other areas with the promise of tax breaks. Moving economic activity from one place to another comes at a cost to the taxpayer.

There are concerns that the UK Government may allow companies to avoid other regulations – such as worker's rights – in the name of 'flexibility'. This could mean companies within a Freeport may attempt to lower levels of workplace protections including Health and Safety regulations. This would be a substantial risk to the rights and terms and conditions of Unite members. What's more, the area could drag others down, by acting as an under cutter for the wider region or industry.

We do not believe that regional 'levelling up' will be achieved through corporate tax cuts and deregulation as has been stated as the reason for the Freeport model. It requires unionised jobs delivering fair pay, decent work and community benefits. Unless we receive guarantees from the Scottish Government on stronger protections for workers' rights, jobs and the environment, green ports are Freeports by any other name!

## Unite's Position

Unite is clear, green ports/freeports must not be used as a way to attack workers' rights, allow undercutting of conditions or pay, by-pass legislation protecting workers health & safety or stoke division between industrial sectors and employers which will then lead to a race to the bottom.

Green ports/freeports must therefore:

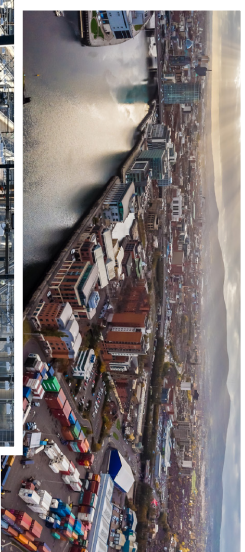
- Ensure that any economic benefits to employers and supply chains come with protections for workers;
- Create quality well paid jobs utilising local skills and local workers wherever possible;
- Develop workplace skills through investment, including quality apprenticeships;
- Permit the use of roving safety representatives in any unorganised workplaces within any Scottish green ports;
- Support direct employment, prohibit zero hours contracts or attempt to disguise the employment status of workers;
- Recognise trade unions and respect all collective bargaining agreements and guarantees against blacklisting on construction sites;
- Abide by all UK Health and Safety and Working Time legislation and regulations;
- Include local content clauses ensuring economic benefits to the community in which they operate;
- Abide by all UK environmental legislation and regulations;
- Ensure all products developed in Freeport areas are manufactured within (adhering to) relevant regulations and meet UK relevant safety standards and product safety law.

### For further information please contact:

<https://www.unitetheunion.org/what-we-do/unite-in-your-region/scotland/contact-us/>  
Unite the union, John Smith House,  
145/165 West Regent Street, Glasgow G2 4RZ  
Tel: 0141 404 5424 Email: [scotland@unitetheunion.org](mailto:scotland@unitetheunion.org)

# GREEN PORTS: a threat to workers rights?

unite the UNION SCOTLAND



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[www.unitetheunion.org](http://www.unitetheunion.org)



## What is a Freeport?

Freeports have been announced by the UK Government, 8 in England and Wales, others planned for Scotland and Wales.

- Freeports are a special kind of port or zone where normal tax and customs rules do not apply.
- These can be maritime ports, airports, the Channel Tunnel or potentially any area in the UK where imports are handled. If proposals by the Scottish Government are accepted, they may be called green ports in Scotland.
- Imports can enter with simplified customs documentation and without paying tariffs.
- Businesses operating inside these zones can import components or raw materials, manufacture goods and only pay a tariff when the final product enters the UK.
- Tariffs and customs checks are avoided entirely if the product is exported again without ever entering the UK outside the Freeport.

Freeports and free zones are intended to stimulate economic activity in their areas. Supporters argue that this can result from direct government support in the form of tax breaks. In England, companies inside the sites will be offered temporary tax breaks. These include reductions to the tax companies pay on their existing property, and when they buy new buildings.

In May 2021, the government confirmed that Freeport employers will be able to pay less National Insurance for all new workers, from April 2022.

## Is the green port model different?

The Scottish Government 'green port' model adapts the UK Government's Freeport model, adding additional priorities to it. Similar to Freeports, green port operators and businesses will be able to benefit from a package of tax and customs incentives.

Green port operators will be asked to adopt Fair Work First criteria, including ensuring that employees are paid fairly, and be fully committed to achieving net zero emissions

According to the Scottish Government, green ports aim to achieve five key objectives:

- promote regeneration and job creation through inclusive and sustainable growth
- establish hubs for global trade and investment
- contribute to a just transition to a net zero economy
- drive fair work practice
- foster an innovative environment

The green port model requires operators and businesses benefiting from the package of incentives to:

- adopt a fair work approach, which includes payment of the real Living Wage
- adopt the Scottish Business Pledge
- commit to supporting sustainable and inclusive growth in local communities
- contribute to Scotland's just transition to net zero

It remains unclear if these proposals will be legally binding in Scotland and the union is continuing to monitor this. What is **clear is that the commitments do not go far enough**. As of 31st January 2020, 722 businesses had signed up to the Scottish Business Pledge in total, representing just 0.4% of Scotland's registered business base. Clearly employers are not signing up to the values of fairness, equality and sustainable employment required under the Business Pledge principles.

Unite believes that fair work will only be delivered successfully through trade unions, collective bargaining and legally enforceable employment rights. Unite's strategy is built on solidarity and coordination between sectors and through sectoral agreements to protect jobs, pay, terms and conditions. Therefore any discussion around fair work must include firm commitments on workers' rights and other protections, including the ability for trade unions to access sites and to organise within any new 'green port'.



## APPENDIX 5

### Advisory Council for Aviation Research and Innovation

The Advisory Council for Aeronautics Research in Europe (ACARE) agreed to develop and maintain a Strategic Research Agenda (SRA) that would help achieve the goals of Vision 2020. ACARE was launched at the Paris Air Show in June 2001 and attracted over 40 member organisations and associations including representation from the Member States, the European Commission, and stakeholders, including the manufacturing industry, airlines, airports, service providers, regulators, research establishments and academia.

ACARE's focus is to carry forward the SRA to influence all European stakeholders in the planning of research programmes at European and national levels. The SRA was not a research programme, but rather a roadmap outlining the strategic orientations which should be taken if Europe is to meet society's needs for aviation as a public mode of transport as well as noise and emissions reduction requirements in a sustainable way.

<https://www.acare4europe.org/about-acare>

### Air Pollution

Air pollution is a mixture of solid particles and gases in the air. Car emissions, chemicals from factories, dust, pollen, and mold spores may be suspended as particles. Ozone, a gas, is a major part of air pollution in cities. When ozone forms air pollution, it's also called smog.

Some air pollutants are poisonous. Inhaling them can increase the chances of people having health problems. People with heart or lung disease, older adults and children are at greater risk from air pollution. Air pollution isn't just outside - the air inside buildings can also be polluted and affect your health.

<https://medlineplus.gov/airpollution.html>

### Biofuel

Biofuel is any fuel that is derived from biomass—that is, plant or algae material or animal waste. Since such feedstock material can be replenished readily, biofuel is considered to be a source of renewable energy, unlike fossil fuels such as petroleum, coal, and natural gas. Biofuel is commonly advocated as a cost-effective and environmentally benign alternative to petroleum and other fossil fuels, particularly within the context of rising petroleum prices and increased concern over the contributions made by fossil fuels to global warming. Many critics express concerns about the scope of the expansion of certain biofuels because of the economic and environmental costs associated with the refining process and the potential removal of vast areas of arable land from food production.

<https://www.britannica.com/technology/biofuel>

### Carbon Capture Storage Technology

Carbon capture and storage (CCS) is the process of capturing and storing carbon dioxide (CO<sub>2</sub>) before it is released into the atmosphere. The technology can capture up to 90% of CO<sub>2</sub> released by burning fossil fuels in electricity generation and industrial processes such as cement production.

<https://www.lse.ac.uk/granthaminstitute/explainers/what-is-carbon-capture-and-storage-and-what-role-can-it-play-in-tackling-climate-change/>

### Carbon Footprint

The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community.

[https://www.lexico.com/definition/carbon\\_footprint](https://www.lexico.com/definition/carbon_footprint)

## Carbon Sinks

A carbon sink is anything that absorbs more carbon from the atmosphere than it releases – for example, plants, the ocean, and soil. In contrast, a carbon source is anything that releases more carbon into the atmosphere than it absorbs – for example, the burning of fossil fuels or volcanic eruptions.

<https://www.clientearth.org/latest/latest-updates/stories/what-is-a-carbon-sink/>

## Carcinogenic

Having the potential to cause cancer.

<https://www.lexico.com/definition/have>

## Circular Economy

Looking beyond the current take-make-waste extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

<https://www.ellenmacarthurfoundation.org/circular-economy/concept>

## Climate Crisis

Serious problems that are being caused or likely to be caused by changes in the world's weather, in particular the world getting warmer as a result of human activity increasing the level of carbon dioxide in the atmosphere.

<https://dictionary.cambridge.org/dictionary/english/climate-crisis>

## Climate Emergency

‘Serious and urgent problems that are being caused or likely to be caused by changes in the world's weather. In particular, the world getting warmer as a result of human activity increasing the level of carbon dioxide in the atmosphere’.

<https://dictionary.cambridge.org/dictionary/english/climate-emergency>

## Common Agriculture Policy

Launched in 1962, the EU's common agricultural policy (CAP) is a partnership between agriculture and society, and between Europe and its farmers. It aims to:

- Support farmers and improve agricultural productivity, ensuring a stable supply of affordable food.
- Safeguard European Union farmers to make a reasonable living.
- Help tackle climate change and the sustainable management of natural resources.
- Maintain rural areas and landscapes across the EU.
- Keep the rural economy alive by promoting jobs in farming, agri-foods industries, and associated sectors.

The CAP is a common policy for all EU countries. It is managed and funded at European level from the resources of the EU's budget.



## Decarbonisation

'The process of replacing fossil fuels with fuel that is less harmful to the environment'.

<https://www.oxfordlearnersdictionaries.com/definition/english/decarbonization>

## Decent Work

'Decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men'.

<https://www.ilo.org/global/topics/decent-work/lang--en/index.htm>

## Decent Pay

"Fair wage, decent wage, living wage... it doesn't matter what you call it, it's about paying workers enough so that they can cover the basic costs required for a dignified, healthy life," says Sabita Banerji, Ethical Trading Initiative.

Some countries have a legal minimum wage, but this does not always reflect either a living or a fair wage, and there is a difference between the two, explains IndustriALL Global Union's Monika Kemperle. "A living wage is a wage on which a worker and his or her family can live off. A fair wage does not always include the living costs for the dependents."

<https://www.theguardian.com/sustainable-business/sustainable-fashion-blog/2015/feb/05/fair-wage-living-wage-fashion-six-things-you-need-to-know>

## Devolved Administration

'Twenty years ago, devolution transformed the governance of Scotland, Wales and Northern Ireland. Wide-ranging powers to make law, manage public services, and set public spending priorities were transferred to new institutions in Edinburgh, Cardiff, and Belfast. Devolution is now a permanent part of the UK constitution, but the devolution settlements have been anything but settled. Since 1999, devolution has evolved continuously. Extensive further powers have been transferred from Westminster, and the UK Parliament and Government have had to adapt in various ways. Since 2016, Brexit has created new tensions in the relationship between the UK and devolved governments.'

<https://www.instituteforgovernment.org.uk/publication/devolution-at-20/overview>



## District Heating / Heat Networks

District heating offers the promise of a neat solution for the supply of low-carbon heat to homes, businesses, and public buildings.

It's all about taking energy released as heat from a varied range of energy sources and connecting to energy consumers through a system of highly insulated pipes.

There is certainly a growing case being made for expansion of such heating networks. A recent report from the Energy Technologies Institute (ETI) suggested that by using low carbon fuels they could potentially meet nearly half of UK heat demand, while reducing national decarbonisation costs by £3 billion.

The UK is now a net importer of natural gas, and this is likely to prove a factor that generates further interest in district heating as a means of providing greater energy security. If done properly, this approach to heat should also bring carbon reduction, benefits to the local economy, and reduced fuel bills for end users (including householders).

<https://energysavingtrust.org.uk/what-district-heating/>

## Ecological

Relating to ecology (= the relationship between living things and their environment) or the environment. E.g., the industry has created thousands of jobs in rural communities, but environmentalists believe this has been an ecological disaster.

<https://dictionary.cambridge.org/dictionary/english/ecological>

## Ecological Footprint

The simplest way to define ecological footprint would be to call it the impact of human activities measured in terms of the area of biologically productive land and water required to produce the goods consumed and to assimilate the wastes generated.

[https://www.panda.org/discover/knowledge\\_hub/teacher\\_resources/webfieldtrips/ecological\\_balance/eco\\_footprint/](https://www.panda.org/discover/knowledge_hub/teacher_resources/webfieldtrips/ecological_balance/eco_footprint/)

## Electrified Powertrain (e-Powertrain)

An electric Powertrain (e-Powertrain) powers electric vehicles (EVs) and removes the need for an internal combustion engine. It is a lightweight, compact system that produces extremely low vibrations and generates instant torque. These elements combine to deliver a high quality, smooth and very responsive drive. The e-Powertrain's key components are its inverter, high-power electric motor, reduction drive and power delivery module (PDM).

[https://www.nissan-global.com/EN/TECHNOLOGY/OVERVIEW/e\\_powertrain.html](https://www.nissan-global.com/EN/TECHNOLOGY/OVERVIEW/e_powertrain.html)

## Electric Vehicle

An electric vehicle (EV) is a mode of transport which is powered by electricity. Unlike conventional vehicles that use a gasoline (petrol), or diesel-powered engine, electric cars and trucks use an electric motor powered by electricity from batteries or a fuel cell. A key advantage of EVs over other forms of transport is that they hold the potential to significantly reduce pollution by having zero exhaust emissions.

<https://www.edie.net/definition/Electric-vehicle/134>

[https://energyeducation.ca/encyclopedia/Energy\\_density\\_vs\\_power\\_density](https://energyeducation.ca/encyclopedia/Energy_density_vs_power_density)

## Electric Vehicle Charging

An electric vehicle charging station is equipment that connects an electric vehicle (EV) to a source of electricity to recharge electric cars, neighbourhood electric vehicles and plug-in hybrids. Some charging stations have advanced features such as smart metering, cellular capability and network connectivity, while others are more basic. <https://whatis.techtarget.com/definition/electric-vehicle-charging-station>

## Energy Density and Power density

Energy density is the amount of energy in a given mass (or volume) and power density is the amount of power in a given mass. The distinction between the two is like the difference between Energy and power. Batteries have a higher energy density than capacitors, but a capacitor has a higher power density than a battery. This difference comes from batteries being able to store more energy, but capacitors can give off energy more quickly.

## Energy Efficiency:

The economical use of energy, especially electricity or fuel.  
[https://www.lexico.com/definition/energy\\_efficiency](https://www.lexico.com/definition/energy_efficiency)

## Environment Agency UK:

The Environment Agency works to create better places for people and wildlife and support sustainable development. The priorities of the Environment Agency are:

- Work with businesses and other organisations to manage the use of resources.
- Increase the resilience of people, property, and businesses to the risks of flooding and coastal erosion.
- Protect and improve water, land, and biodiversity.
- Improve the way we work as a regulator to protect people and the environment and support sustainable growth.

<https://www.gov.uk/government/organisations/environment-agency/about>

## EU Emissions Trading Scheme – (EU ETS)

The EU ETS is a cornerstone of the EU's policy to combat climate change and its key tool for reducing greenhouse gas emissions cost-effectively. It is the world's first major carbon market and remains the biggest one. The EU ETS:

- Operates in all EU countries plus Iceland, Liechtenstein, and Norway (EEA-EFTA states).
- Limits emissions from around 10,000 installations in the power sector and manufacturing industry, as well as airlines operating between these countries.
- Covers around 40% of the EU's greenhouse gas emissions.

[https://ec.europa.eu/clima/policies/ets\\_en](https://ec.europa.eu/clima/policies/ets_en)

## European Federation of Food, Agriculture and Tourism Trade Unions – EFFAT

EFFAT is the European Federation of Food, Agriculture, and Tourism Trade Unions, also representing domestic workers. As a European Trade Union Federation representing 116 national trade unions from 37 European countries. EFFAT defends the interests of more than 25 million workers within the European Institutions, European employers' associations, and transnational companies. EFFAT is a member of the ETUC and the European regional organisation of the IUF.

<https://effat.org/>



## Flight Path 2050 Vision

This document sets out a European vision for the future of aviation. It emphasises where those working in aviation see the priorities for the relevant policy, research, and innovation instruments. It is a high-level vision of Europe leading with an aviation industry that is clean, competitive, safe and secure. <https://ec.europa.eu/transport/sites/default/files/modes/air/doc/flightpath2050.pdf>

## Food and Drink Federation – (FDF)

The FDF is the membership body for the food and drink manufacturing sector. They represent and support food and drink companies, from ambitious sole traders and SMEs to the largest global brands. They respond to the issues and challenges shaping the world in which members operate, equipping members with the opportunities and expertise to develop, grow and sustain their businesses.

<https://www.fdf.org.uk/>

## Forestation

The planting of trees over a wide area. <https://www.collinsdictionary.com/dictionary/english/forestation>

## Fossil Fuel Based Energy

Fossil fuels are any of a class of hydrocarbon-containing materials of biological origin occurring within Earth's crust that can be used as a source of energy. Fossil fuels include coal, petroleum, natural gas, oil shales, bitumens, tar sands, and heavy oils. All contain carbon and were formed as a result of geologic processes acting on the remains of organic matter produced by photosynthesis, a process that began in the Archean Eon (4.0 billion to 2.5 billion years ago). Most carbonaceous material occurring before the Devonian Period (419.2 million to 358.9 million years ago) was derived from algae and bacteria, whereas most carbonaceous material occurring during and after that interval was derived from plants. <https://www.britannica.com/science/fossil-fuel>

## Freeports

Freeports are a special kind of port where normal tax and customs rules do not apply. These can be airports as well as seaports. At a freeport, imports can enter with simplified customs documentation and without paying tariffs. Businesses operating inside designated areas in and around the port can manufacture goods using the imports and add value, before exporting again without ever paying the full tariff on the original goods they imported – although a tariff may be payable on the finished product when it reaches its destination, including if that destination is in the same country outside the freeport.

Freeports are like free zones, or 'enterprise zones', which are designated areas subject to a broad array of special regulatory requirements, tax breaks and government support. The difference is that a freeport is designed to specifically encourage businesses that import, process and then re-export goods, rather than more general business support or regeneration objectives.

<https://www.instituteforgovernment.org.uk/explainers/trade-freeports-free-zones>

## Gigafactory

The phrase Gigafactory originally referred to a giant factory being built by electric car manufacturer Tesla near Reno, Nevada.

Tesla will eventually create batteries from scratch, starting with raw materials and ending with the finished product.

This is an extremely complex process, and while it is more economical to do the whole thing in one place, it also requires several different processes, which is why the site needs to be so large.

<https://www.coventrytelegraph.net/news/coventry-news/what-gigafactory-important-17679655>

## Glacier

A glacier is a huge mass of ice that moves slowly over land. The term “glacier” comes from the French word *glace* (glah-SAY), which means ice. Glaciers are often called “rivers of ice.” Glaciers fall into two groups: alpine glaciers and ice sheets. Alpine glaciers form on mountainsides and move downward through valleys. Ice sheets, unlike alpine glaciers, are not limited to mountainous areas. They form broad domes and spread out from their centre in all directions.

<https://www.nationalgeographic.org/encyclopedia/glacier/>

## Global South

The phrase “Global South” refers broadly to the regions of Latin America, Asia, Africa, and Oceania. It is one of a family of terms, including “Third World” and “Periphery,” that denote regions outside Europe and North America, mostly (though not all) low-income and often politically or culturally marginalized. <https://journals.sagepub.com/doi/pdf/>

## Global Trade Union Federations:

‘A Global Union Federation (GUF) or global union is an international confederation of national and regional trade unions organized in specific industry sectors or for particular occupational groups. There are 11 GUFs in total, including the International Federation of Journalists, the International Transport Workers’ Federation, Public Service International, and the Union Network International. Previously GUFs were known as international trade secretariats. Most major unions in the UK and other countries are members of one or more GUFs, the pattern of affiliation reflecting the industry and occupational distribution of their members.

GUFs have become more prominent in recent years, reflecting the forces of globalization and the pressure on unions to cooperate more effectively across national borders. They engage in a broad range of activities including supporting their member organizations, particularly in developing economies, lobbying international agencies to promote workers’ interests and human rights, encouraging union organising and international solidarity action, and in some cases engaging in global collective bargaining with large multinationals and employers’ organisations.

The latter most frequently leads to the negotiation of framework agreements: statements of principle that commit management to accepting trade unionism and following good employment practice across the subsidiaries of a multinational corporation’.

<https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095855375>

## Green Apprenticeship Advisory Panel

The green apprenticeships advisory panel will help focus efforts to make sure the right skills are in place for the future workforce to deliver the green technology shift the UK needs.

The panel will advise on two main areas:

- Enhancing our current apprenticeships to ensure that they meet the needs of the employers within the growing green economy.
- Creating new apprenticeships to reflect new occupations to meet the challenge to reach net-zero carbon.

The panel will also work closely with the Green Jobs Taskforce set up by the Department of Business, Energy and Industrial Strategy and the Department for Education to develop an action plan for creating the necessary new green jobs and skills. The panel will look at how apprenticeships can play a key role within this.

<https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy>

## Green Aviation

Green Aviation involves activities to improve aircraft fuel efficiency, develop the next generation of efficient air traffic control, and develop new technologies and systems engineering processes to reach the future of carbon-neutral air transportation across the globe:

<https://www.nasa.gov/centers/ames/greenspace/green-aviation.html>

## Green Building Passports

An MOT or a green building passport is the full record of a building, showing upgrades and improvements throughout its lifetime. It will document performance, add value to an asset and go some way to ensuring our buildings are sustainable and perform to the standard intended.

<https://insulationmanufacturers.org.uk/closing-the-performance-gap-with-a-building-mot/>

## Green Economy

A green economy is defined as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.

<https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy>

## Green Funds

A green fund is a mutual fund or another investment vehicle that will only invest in companies that are deemed socially conscious in their business dealings or directly promote environmental responsibility.

[https://www.investopedia.com/terms/g/green\\_fund.asp](https://www.investopedia.com/terms/g/green_fund.asp)

## Greenhouse Gas Emissions

Greenhouse gases have far-ranging environmental and health effects. They cause climate change by trapping heat, and they also contribute to respiratory disease from smog and air pollution. Extreme weather, food supply disruptions, and increased wildfires are other effects of climate change caused by greenhouse gases. <https://www.nationalgeographic.com/environment/article/greenhouse-gases>

## Green Jobs:

The specific definition of these sectors is: “economic activities that deliver goods and services that are likely to help the UK generate lower emissions of greenhouse gases, predominantly carbon dioxide. <https://www.ons.gov.uk/economy/environmentalaccounts/methodologies> [thechallengesofdefiningagreenjob](https://www.ons.gov.uk/economy/environmentalaccounts/methodologies)

## Green Manufacturing

Green manufacturing is the renewal of production processes and the establishment of environmentally friendly operations within the manufacturing field. Green manufacturers research, develop, or utilize technologies and practices to lessen their impact on the environment. <https://www.goodwin.edu/enews/what-is-green-manufacturing/>

## Green Ports

The green port model for Scotland adapts the UK government’s freeport model to fit the Scottish context.

A green port is a large-zoned area within a defined boundary which includes a rail, sea, or airport. Green port operators and businesses in the zone can benefit from a package of tax and customs incentives. They will also have to adopt Fair Work First criteria, including ensuring that employees are paid fairly, and be fully committed to achieving net zero emissions.

The sustainable, fair, green port model is designed to be an exemplar of Scotland’s values and ambitions so that it not only boosts innovation and inclusive growth within communities, but also delivers Fair Work First practices, upholds the highest environmental protections, and contributes to a net zero economy. The green port model adapts the UK Government’s freeport model, adding Scotland’s priorities to it.

### Green ports aim to achieve five key objectives:

- Promote regeneration and job creation through inclusive and sustainable growth.
- Establish hubs for global trade and investment.
- Contribute to a just transition to a net zero economy.
- Drive fair work practice.
- Foster an innovative environment.

<https://www.gov.scot/policies/cities-regions/green-ports/>



## Green Prisons

As the Government works towards net-zero by 2050, the four new prisons being built in England will use heat pumps, efficient lighting systems and thousands of solar panels, to reduce energy demand by half and cut carbon emissions by at least 85% compared to prisons already under construction.

This is expected to reduce CO2 emissions by 280,000 tonnes, cut £100 million in energy costs over the next 60 years. Future prison expansions will also be built to similar standards.

The new designs will learn from the construction of HMP Five Wells in Wellingborough, Northamptonshire, and the new jail in Glen Parva, Leicestershire, which are being constructed more sustainably than existing prisons using recycled materials and incorporating green energy.

<https://www.gov.uk/government/news/new-prisons-go-green>

## Green Recovery

The Green Recovery is the name given to a series of economic recovery measures aligned with achieving long-term climate change and sustainability objectives, to move toward a sustainable and economic model for the planet, which is both more resilient and inclusive.

<https://www.iberdrola.com/about-us/green-recovery>

## Greenwashing

Behaviour or activities that make people believe that a company is doing more to protect the environment than it really is. <https://dictionary.cambridge.org/dictionary/english/greenwashing>

## Green Workplaces

The green workplace is simply defined as a workplace that is environmentally sensitive, resource efficient, and socially responsible. <https://link.springer.com/referenceworkentry/>

## Ice Cap

An ice cap is a thick layer of ice and snow that covers large areas of land. You'll usually find ice caps in the North and South Poles of the Earth. <https://www.nationalgeographic.org/encyclopedia/ice-cap/>

## IndustriALL

IndustriALL Global Union represents 50 million workers in 140 countries in the mining, energy and manufacturing sectors and is a force in global solidarity taking up the fight for better working conditions and trade union rights around the world.

IndustriALL challenges the power of multinational companies and negotiates with them on a global level. IndustriALL fights for another model of globalization and a new economic and social model that puts people first, based on democracy and social justice.

Founded on 19 June 2012, the organization brings together affiliates of the former global union federations: International Metalworkers' Federation (IMF), International Federation of Chemical, Energy, Mine and General Workers' Unions (ICEM) and International Textiles Garment and Leather Workers' Federation (ITGLWF).

## IndustriALL Global Union represents workers in a wide range of sectors:

- extraction of oil and gas
- mining, diamonds, and gems
- generation and distribution of electric power
- base metals
- shipbuilding and shipbreaking
- automotive
- aerospace
- mechanical engineering
- ICT, electrical and electronics
- chemicals
- rubber
- pulp and paper
- building materials
- textiles, garments, leather, and footwear

<http://www.industrialunion.org/who-we-are>

## Internal Combustion Engine

An engine which generates motive power by the burning of petrol, oil, or other fuel with air inside the engine, the hot gases produced being used to drive a piston or do other work as they expand.

[https://www.lexico.com/definition/internal\\_combustion\\_engine](https://www.lexico.com/definition/internal_combustion_engine)

## International Supply Chains

‘Global supply chains are networks that can span across multiple continents and countries for the purpose of sourcing and supplying goods and services. Global supply chains involve the flow of information, processes and resources across the globe’.

<https://www.cips.org/knowledge/procurement-topics-and-skills/supply-chain-management/global-supply-chains/>

## Heat Pumps

A heat pump is a relatively new technology in the UK although they are widely used in Scandinavia and many parts of Europe where there is an abundance of renewably sourced electricity.

A heat pump takes energy from outside and transfers it into heat to be circulated around a heating and hot water system. A heat pump uses electricity to run the components of a heat pump, principally a fan, compressor and circulating pumps to transfer the energy from the heat source into the heat sink or heating system.

<https://www.worcester-bosch.co.uk/heat-pumps>

## Hydrogen Economy

A hydrogen economy is based around hydrogen energy. Hydrogen energy involves the use of hydrogen and / or hydrogen-containing compounds to generate energy to be supplied to all practical uses needed with high energy efficiency, overwhelming environmental and social benefits, as well as economic competitiveness.

<https://www.sciencedirect.com/topics/engineering/hydrogen-energy>

## Hydrogen Fuelled Cars

A hydrogen fuel cell car is an electric car, with the power being generated by a series of chemical reactions between hydrogen and oxygen rather than stored on board in a battery that is topped up via a plug.

The technology is still being developed, so there are many different types of hydrogen fuel cell at present, but all are aimed at essentially the same goal: to combine hydrogen and oxygen to produce water and electricity.

Hydrogen fuel cell technology is seen by some experts as a solution to more environmentally friendly transport for the future because the only waste product that emerges from the car's tailpipe is water. And the complex air filters used in the cars means they can also draw in and clean dirty air as they drive along. <https://www.whatcar.com/advice/buying/what-is-a-hydrogen-fuel-cell-car/n18053>

## Hydrogen Technologies

Hydrogen fuel cells have been promoted as a zero-emission energy source because they convert hydrogen into electricity and the only by-product is water.

'Hydrogen will play several roles in the future. For transport, we now see several manufacturers launching cars powered by electricity produced in a hydrogen fuel cell, and this will happen even more in the near future. Fuel cell buses are also an attractive solution for public transport. It is quite interesting to see that, in Europe, there are nearly 100 hydrogen buses on the road, which in comparison with the US and Japan, remains quite a significant amount. Then there are other applications for transport such as forklifts and boats, and engineers are now even starting to consider using fuel cells and hydrogen to power trains.

'Hydrogen fuel cells offer lots of other possibilities and present a great potential for energy applications as well. For example, so-called micro combined heat and power (CHP) systems, which are fuel cells that can be used for residential applications, have the potential to reduce CO2 emissions when compared to a gas condensing boiler.

'Hydrogen will also play an increasing role in energy storage. For example, a windmill is likely to generate too much electricity in strong winds and would need to shut down. Instead of shutting it down, the excess energy could be used to produce hydrogen by passing it through water. This could then be used for transport or other purposes.' <https://ec.europa.eu/research-and-innovation/>

## International Union of Food

The International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF) is an international federation of trade unions representing workers in:

- Agriculture and plantations.
- The processing and manufacture of food and beverages.
- Hotels, restaurants, tourism, and catering services.
- All stages of tobacco processing.

The IUF is composed of 425 affiliated trade unions in 127 countries representing over 10 million workers. It is based in Geneva, Switzerland.

<https://www.righttofoodandnutrition.org/international-union-food-workers>

## Just Transition

'A Just Transition secures the future and livelihoods of workers and their communities in the transition to a low-carbon economy. It is based on social dialogue between workers and their unions, employers, and government, and consultation with communities and civil society. A plan for Just Transition provides and guarantees better and decent jobs, social protection, more training opportunities, and greater job security for all workers affected by global warming and climate change policies.

<https://www.ituc-csi.org/just-transition-centre>

## Low Carbon

Causing or resulting in only a relatively small net release of carbon dioxide into the atmosphere. E.g., 'the low-carbon alternative to coal' <https://www.lexico.com/definition/low-carbon>

## Multi-modal Transport

Multimodal Transport is the combination of different means of transport, to facilitate the movement of cargo, i.e., making it faster and more efficient.

When it comes to this mode of transportation, there is more than one kind of vehicle necessary to take the goods to their destination, using trucks, trains, ships, airplanes, or some other mean of transport for the delivery.

The advantage of Multimodal Transport lies in the most efficient combination of multiple means of transport, whilst optimizing deadlines, cutting back on inventory costs, therefore keeping the costs of the merchandise under control. The combination of these also results in high environmental sustainability since Multimodal Transport reduces the environmental footprint of transportation.

<http://www.multicargo.pt/blog-en/what-is-multimodal-transport>

## Natural Gas Distribution Networks

When you turn on your gas cooker or fire up your boiler you take it for granted that gas will be freely flowing through the pipes to the application in question. The fact that you're able to do so is thanks, in large part, to the gas distribution network and is an important part of energy distribution in the UK. The gas distribution network is a system which transmits natural gas across the whole of the UK. It involves gas being stored at differing pressures and temperatures so that it is always available when consumers need it, whether that means supplying gas to domestic users wanting to boil a kettle for a cup of tea, fuelling the vast furnaces which help to power some of our largest manufacturers or keeping the schools, hospitals, and public buildings upon which, we all depend warm and dry.

<https://www.switch-plan.co.uk/distribution/gas-distribution-network/>



## Neonics

- Neonicotinoids are active substances used in plant protection products to control harmful insects, which means they are insecticides.
- The name literally means “new nicotine-like insecticides”. They are chemically like nicotine.
- The name neonicotinoids is sometimes shortened to “neonics” or “NNIs”.
- The first neonic was approved in the EU in 2005. Neonics are systemic pesticides. Unlike contact pesticides, which remain on the surface of the treated parts of plants (e.g., leaves), systemic pesticides are taken up by the plant and transported throughout the plant (leaves, flowers, roots, and stems, as well as pollen and nectar).
- Neonics are much more toxic to invertebrates, like insects, than they are to mammals, birds, and other higher organisms.
- Neonics affect the central nervous system of insects, leading to eventual paralysis and death.

[https://ec.europa.eu/food/plants/pesticides/approval-active-substances/renewal-approval/neonicotinoids\\_en](https://ec.europa.eu/food/plants/pesticides/approval-active-substances/renewal-approval/neonicotinoids_en)

## Network – H2

Network-H2 combines existing networks across the Engineering and Physical Sciences Research Council (EPSRC), Thermal Energy Challenge Network, EPSRC Centre for Energy Systems Integration, Research Councils UK (RCUK), Hydrogen and Fuel Cells Hub, Advanced Propulsion Centre (APC), Consortium on Turbulent Reacting Flows, North East Centre for Energy Materials, MTech consortium and relevant research projects funded by the RCUK Programme and other national and international cross-disciplinary research to initiate a National network for hydrogen fuelled transportation. It will support the dissemination and impact of research activities among academia, industry, policymakers, and the public to ensure engagement and knowledge transfer taking place across all modes of transport and hydrogen energy including technology, socioeconomics, behavioural science, and policy. <https://cutcarbon.org.uk/network-h2/>

## Net Zero Carbon

A “net-zero” target refers to reaching net-zero carbon emissions by a selected date, but differs from zero carbon, which requires no carbon to be emitted as the key criteria.

Net-zero refers to balancing the amount of emitted greenhouse gases with the equivalent emissions that are either offset or sequestered. This should primarily be achieved through a rapid reduction in carbon emissions, but where zero carbon cannot be achieved, offsetting through carbon credits or sequestration through rewilding or carbon capture and storage needs to be utilised.

<https://www.edie.net/definition/Net-zero-carbon/232>

## Nitrogen Dioxide

Nitrogen Dioxide (NO<sub>2</sub>) is one of a group of highly reactive gases known as oxides of nitrogen or nitrogen oxides (NO<sub>x</sub>). Other nitrogen oxides include nitrous acid and nitric acid. NO<sub>2</sub> is used as the indicator for the larger group of nitrogen oxides.

NO<sub>2</sub> primarily gets in the air from the burning of fuel. NO<sub>2</sub> forms from emissions from cars, trucks and buses, power plants, and off-road equipment.

<https://www.epa.gov/no2-pollution/basic-information-about-no2>

## Offshore Wind Energy

Offshore wind energy is the clean and renewable energy obtained by taking advantage of the force of the wind that is produced on the high seas, where it reaches a higher and more constant speed than on land due to the absence of barriers. To make the most of this resource, mega-structures are installed that are seated on the seabed and equipped with the latest technical innovations.

<https://www.iberdrola.com/environment/how-does-offshore-wind-energy-work>

## Onshore Wind Energy

Wind turbines located on land which harness the energy of moving air to generate electricity. Onshore wind farms provide a renewable energy source and do not emit greenhouse gases (GHG).

<https://www.edie.net/definition/Onshore-wind/78>

## Overfishing

Overfishing is catching too many fish at once, so the breeding population becomes too depleted to recover. Overfishing often goes hand in hand with wasteful types of commercial fishing that haul in massive amounts of unwanted fish or other animals, which are then discarded. As a result of prolonged and widespread overfishing, nearly a third of the world's assessed fisheries are now in deep trouble. That is a likely underestimate since many fisheries remain unstudied.

<https://www.edf.org/oceans/overfishing-most-serious-threat-our-oceans>

## Renewable Energy

A renewable energy source means energy that is sustainable - something that can't run out, or is endless, like the sun. When you hear the term 'alternative energy' it's usually referring to renewable energy sources too. It means sources of energy that are alternative to the most used non-sustainable sources – like coal. <https://www.edfenergy.com/for-home/energywise/renewable-energy-sources>

## Retrofitting of Buildings

When you do an energy-efficiency retrofit on your building, you upgrade its energy-consuming systems. Retrofitting may involve improving or replacing lighting fixtures, ventilation systems or windows and doors, or adding insulation where it makes economic sense. It also means including energy efficiency measures in all your renovation and repair activities.

<https://www.nrcan.gc.ca/energy-efficiency/buildings/existing-buildings/retrofitting/20707>

## SESAR

SESAR stands for "Single European Sky ATM Research". The SESAR project (formerly known as SESAME) is the European air traffic control infrastructure modernisation programme. SESAR aims at developing the new generation air traffic management (ATM) system capable of ensuring the safety and fluidity of air transport worldwide over the next 30 years. <https://www.sesarju.eu/>

## Share Action – Responsible Investment

Responsible investment is an investment strategy which integrates environmental, social, and governance (ESG) factors into investment analysis and decisions. It recognises that ESG factors can have an impact on the financial value of an investment and that investments have an impact on the world around us. A responsible approach to investment recognises that long-term prosperity requires a move away from short-term profit as the only definition of value. <https://shareaction.org/>

## Shovel Ready

'Shovel Ready' refers to projects that are ready to go in terms of having secured the necessary investment spending, having obtained the necessary approvals and licenses, and are therefore ready for construction and employment.

<https://www.globalfields.co.uk/insights/what-exactly-are-shovel-ready-projects>

## Smart Meter

A Smart Meter shows a digital meter reading and uses a secure smart data network to automatically send the reading to your energy supplier. It means that you get accurate, not estimated bills, without needing to take a manual reading. <https://www.smartenergygb.org/en/about-smart-meters>

## Small Modular Technologies

Global interest in small and medium sized or modular reactors has been increasing due to their ability to meet the need for flexible power generation for a wider range of users and applications and replace ageing fossil fuel-fired power plants. They also display an enhanced safety performance through inherent and passive safety features, offer better upfront capital cost affordability and are suitable for cogeneration and non-electric applications. In addition, they offer options for remote regions with less developed infrastructures and the possibility for synergetic hybrid energy systems that combine nuclear and alternate energy sources, including renewables.

<https://www.iaea.org/topics/small-modular-reactors>

## Solar Farm

An installation or area of land in which many solar panels are set up to generate electricity.

[https://www.lexico.com/definition/solar\\_farm](https://www.lexico.com/definition/solar_farm)

## Solar Panels

Solar Panels are electricity panels, also known as photovoltaics (PV). They capture the sun's energy and convert it into electricity that you can use in your home. By installing solar panels, you can generate your own renewable electricity. <https://energysavingtrust.org.uk/advice/solar-panels/>

## Sustainable Aviation Fuel (SAF)

SAF stands for sustainable aviation fuel. It's produced from sustainable feedstocks and is very similar in its chemistry to traditional fossil jet fuel. Using SAF results in a reduction in carbon emissions compared to the traditional jet fuel it replaces over the lifecycle of the fuel. Some typical feedstocks used are cooking oil and other non-palm waste oils from animals or plants; solid waste from homes and businesses, such as packaging, paper, textiles, and food scraps that would otherwise go to landfill or incineration. Other potential sources include forestry waste, such as waste wood, and energy crops, including fast growing plants and algae.

<https://www.bp.com/en/global/air-bp/news-and-views/views/what-is-sustainable-aviation-fuel-saf-and-why-is-it-important.html>

## Sustainable Development

Sustainable development is the overarching paradigm of the United Nations. The concept of sustainable development was described by the 1987 Brundtland Commission Report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

<https://en.unesco.org/themes/education-sustainable-development/what-is-esd/sd>

## Sustainable Energy

Sustainable energy is a form of energy that meets today’s demand for energy without putting the earth’s resources in danger of getting expired or depleted. They can be used repeatedly. Sustainable energy should be widely encouraged as it does not cause any harm to the environment and is available widely free of cost. All renewable energy sources like solar, wind, geothermal, hydropower and ocean energy are sustainable as they are stable and available in plenty.

<https://www.conserve-energy-future.com/sustainableenergy.php>

## The Fourth Industrial Revolution

The Fourth Industrial Revolution is of a scale, speed and complexity that is unprecedented. It is characterised by a fusion of technologies – such as artificial intelligence, gene editing and advanced robotics – that is blurring the lines between the physical, digital, and biological worlds. It will disrupt nearly every industry in every country, creating new opportunities and challenges for people, places, and businesses to which we must respond.

<https://www.weforum.org/focus/fourth-industrial-revolution>

## Union Green Reps

Just as unions and employers work together to improve health and safety in the workplace through safety committees, union environmental (or ‘green’) reps can be elected to champion environmental issues. They can raise awareness and ensure that green issues are included in the negotiating or bargaining agenda at work. The main concern of a union green rep is to agree a joint approach to ‘greening the workplace’. The starting point, as always, is talking to union members about their ideas to change the way they work, and the resources used.

<https://www.tuc.org.uk/resource/go-green-work-union-effect>

## UK Government’s 10 Point Plan

The ten-point plan sets out the approach government will take to build back better, support green jobs, and accelerate our path to net zero.

As the world looks to recover from the impact of coronavirus on our lives, livelihoods, and economies, we have the chance to build back better: to invest in making the UK a global leader in green technologies.



The plan focuses on increasing ambition in the following areas:

- Advancing offshore wind.
- Driving the growth of low carbon hydrogen.
- Delivering new and advanced nuclear power.
- Accelerating the shift to zero emission vehicles.
- Green public transport, cycling and walking 'jet zero' and green ships.
- Greener buildings.
- Investing in carbon capture, usage, and storage.
- Protecting our natural environment.
- Green finance and innovation.

The ten-point plan will mobilise £12 billion of government investment, and potentially three times as much from the private sector, to create and support up to 250,000 green jobs.

<https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution>

## Wind Farms

An area of land with a group of energy-producing windmills or wind turbines.

[https://www.lexico.com/definition/wind\\_farm](https://www.lexico.com/definition/wind_farm)

## Zero Emission Buses

The current proposed definition of a Zero Emission Bus is one that:

- Has no combustion engine on board.
- Has no tailpipe air pollutant emissions.
- Saves at least 30% GHG emissions versus a Euro VI diesel engine of equivalent passenger capacity over the UK Bus Cycle.

<https://www.zemo.org.uk/work-with-us/buses-coaches/projects/defining-a-zero-emission-bus.htm>

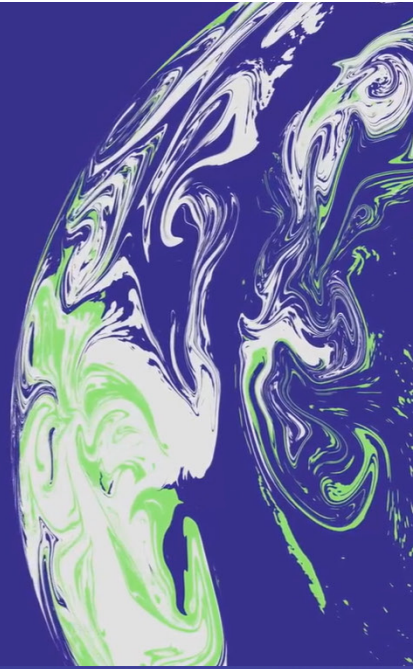
## Zero Emission Bus Regional Area (ZEBRA)

The ZEBRA scheme will provide up to £120 million for local transport authorities (LTAs), outside London, to support the introduction of zero-emission buses and the infrastructure needed to support them. This funding will support the introduction of the 4,000 zero-emission buses announced by the Prime Minister in February 2020.

<https://www.gov.uk/government/publications/apply-for-zero-emission-bus-funding>

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## NOTES

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# unite the union

# ENVIRONMENT CHARTER

Unite believes there is a climate emergency. Trade unions will fight to ensure it is not working people, here and around the globe, who are left to pay the price of climate destruction.

This crisis must be met in a way that delivers better jobs, a better society and better world for all.

### **Unite calls for:**

The decarbonisation of our workplaces, industries and society.

The creation of a green society must mean a socially just and equal society.

Job guarantees to protect the jobs of the current workers and to ensure that all new jobs are good jobs – the right to decent work. That is the basis of our Organising Strategy, which is the cornerstone of our Union's Industrial Strategy – Work, Voice, Pay.

The workers must lead the 'Just Transition' in those industries affected.

International solidarity to ensure the creators of the climate crisis contribute their fair share to the solution.

 [www.learnwithunite.org/environment](http://www.learnwithunite.org/environment)