

Net Zero Review: Aldersgate Group Response

October 2022

BACKGROUND AND SUMMARY

1. The Aldersgate Group is an alliance of major businesses, academic institutions, professional institutes and civil society organisations driving action for a sustainable and competitive economy. Our corporate members, who come from across the economy and have a collective global turnover in excess of £550bn, believe that ambitious and stable low carbon and environmental policies make clear economic sense for the UK.¹
2. We warmly welcome the opportunity to feed into the Department for Business, Energy and Industrial Strategy's Net Zero Review. The central message we have heard from our members is that government should not change direction on its approach to meeting net zero, but instead increase its pace, scale and ambition. Whilst net zero implementation is significant in its own right, it is now an essential solution for addressing the UK's energy security and cost of living crises. Net zero can also drive much needed investment across the country in the low carbon economy, stimulate economic growth and create with jobs distributed regionally in sectors including offshore wind, EV charge point installation and home insulation.

Whilst the majority of investment needed to put the UK on track for net zero will come from the private sector, businesses need clear public policy signals to attract private investment at the lowest possible cost. Alongside well implemented regulation and policy, targeted public funding will be needed for hard to abate sectors, to provide crucial supporting infrastructure that will enable decarbonisation. This public investment will yield high returns for the economy. In its sixth Carbon Budget Report, the Climate Change Committee (CCC) showed that the estimated annualised resource cost of achieving net zero emissions over the next 30 years has reduced and is now estimated at less than 1% of GDP. Further, this investment could deliver a 2% increase in GDP by 2035 (relative to what it would be without that investment) as resources are diverted from fossil fuel imports towards domestic low carbon investment.²

3. Our response below sets out how net zero implementation can strengthen the UK's energy sovereignty, reduce energy bills, and support key export opportunities across the economy. We set out how businesses view decarbonisation as a major investment and job creation opportunity across a wide range of sectors. Finally, this response sets out what our business members need from the UK Government to capitalise on these opportunities and reach net zero.

¹ Individual recommendations cannot be attributed to any single member and the Aldersgate Group takes full responsibility for the views expressed.

² Climate Change Committee (2020) Sixth Carbon Budget

WHAT DOES NET ZERO MEAN TO INVESTMENT AND UK BUSINESSES

4. For our members, and many other businesses across the economy, the transition to net zero offers significant investment opportunities for the UK, with demonstrable benefits to the UK having already existing and far greater opportunities to capitalise on ahead. There have been countless examples where businesses, markets and the public are keen to accelerate the net zero transition but require further guidance from government to facilitate uptake. To our business members, the meaning of net zero comprises:
5. **Sustainable growth and green job creation** – With 70% of the global economy and over 3,000 businesses covered by net zero targets in 2021³, it is clear that the private sector understands the opportunities of a net zero, nature positive economy.⁴ The UK is already seeing the economic benefits of its climate and environmental ambitions: in 2020 alone, businesses in the low carbon and renewable energy sectors generated £41.2bn in turnover, directly employing 207,800 full-time equivalent employees and up to half a million when associated supply chains are included.⁵ The low carbon economy also offers highly skilled jobs that can help the UK attract and retain labour. Our members see delivering net zero as a major job creation opportunity which will deliver the Government's growth agenda. 500,000 jobs can be created by delivering net zero, with 25% created in industry and the rest within supply chains.⁶
6. **Supporting regional prosperity** – The transition to net zero emissions is unique in that it requires developing low carbon infrastructure and solutions that can drive investment, job creation and upskilling in multiple parts of the country beyond just London and the Southeast. For example, the offshore wind sector is expected to employ up to 70,000 people by 2026 in areas such as Yorkshire and the Humber, Scotland and the Solent⁷; the insulation industry will need to employ 30,000 additional workers a year from 2025 to 2030⁸ to make homes around the country more energy efficient; and the Northeast of England will be home to the UK's first major electric vehicle battery factory, employing up to 3,000 people in Blyth by 2028⁹. The decarbonisation of heavy industries such as steel, chemicals and cement can also bring much needed low carbon investment, upskilling opportunities and jobs in industrial clusters¹⁰ like Merseyside, Teesside, Humberside and South Wales.

³ Science Based Targets: <https://sciencebasedtargets.org/net-zero>

⁴ Aldersgate Group, "[The Green Line: A route out of crisis and towards prosperity](#)" (Sept. 2022)

⁵ ECIU: <https://eciu.net/analysis/briefings/net-zero/net-zero-economy-and-jobs>

⁶ The Climate Change Committee [estimates](#) as many as 1.7 million jobs can be created in the green sector by 2030.

⁷ Offshore Wind Industry Council: https://3c588115-556c-4078-9547-344b9bf6665b.filesusr.com/ugd/1c0521_f41bc11dba254cbe9562a9db75afe2d0.pdf (February 2021)

⁸ The Construction Industry Training Board, *Building Skills for Net Zero*, (March 2021)

⁹ The Guardian <https://www.theguardian.com/environment/2022/jan/21/britishvolt-electric-car-battery-uk-gigafactory-blyth-jobs> (January 2022)

¹⁰ UK Government:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803086/industrial-clusters-mission-infographic-2019.pdf (2019)

7. **Providing a first mover advantage and export opportunities**– The UK is a world leader in power decarbonisation. We are ending any reliance on coal, we have developed large volumes of renewables and are at the forefront of developing new technologies like floating wind, wave and tidal stream energy and green hydrogen. We have so much to showcase and export to the world as a result.¹¹
8. **Securing Finance** – The implementation and strengthening of the Government’s proposed reforms on climate reporting and financial disclosures for large corporates and financial institutions will help to tackle greenwashing, change behaviour linked to investment decisions and create a level playing field across the economy. As an example, the Sustainable Disclosures Requirement (SDR) framework can accelerate ambition and ensure that all market participants are considering and reporting on climate change and environmental issues at the same high standard.¹²
9. **Improving business confidence** – Successive governments have supported the positive correlation between decarbonisation of the economy and economic growth, including its job creation potential, in policy papers such as the 2020 Ten Point Plan and the Energy White Paper (“support up to 250,000 jobs by 2030”)¹³. Our business members welcome this and have long agreed that well-designed, smart regulation acts as a guide and enabler of growth. To be environmentally and economically effective, regulations must be cross-sectoral, pitched at the right geographic scale, be coherent with other existing policies, set a clear direction that increases in stringency over time and is implemented in such a way that works with business timescales.¹⁴
10. **Responsibility** – Many of our private sector members understand their role and responsibility to create permanent change by transitioning to net zero. To this end, many of the Aldersgate Group members have signed up for the Science Based Targets Initiative (SBTi) to prove their progress.¹⁵ To support this further, businesses require consistency and long-term certainty from government on the path to net zero. This will allow the transition to continue at pace, without adding costs to businesses anticipating further policy change. It will also ensure the confidence of businesses and consumers in delivering net zero and prevent locking in unnecessary carbon emissions in the process.

HOW DOES NET ZERO HELP ADDRESS ENERGY SECURITY AND COST OF LIVING

11. Gas prices are seeing unprecedented levels of volatility following the Russian invasion of Ukraine. Concerns over the availability of gas supply and intense demand competition

¹¹ RenewableUK, “*Raising the bar: the world-leading energy commitments the UK should make ahead of COP26*”, (May 2021)

¹² Aldersgate Group & CUSP, [Building a UK Net Zero-aligned Financial Centre: what next?](#) (June 2022)

¹³ ECIU: <https://eciu.net/analysis/briefings/net-zero/net-zero-economy-and-jobs>

¹⁴ Buro Happold Engineering/ Aldersgate Group “*Fostering Prosperity: Driving innovation and creating market opportunities through environmental regulations*” (March 2021)

¹⁵ Science Based Targets Initiative: <https://sciencebasedtargets.org/companies-taking-action>

between Europe and Asia for alternatives such as liquefied natural gas mean that global gas prices are likely to increase even further.¹⁶ Whilst the UK does not import the bulk of its gas directly from Russia, its high reliance on gas means that it remains very exposed to the significant price volatility of the global gas market which is in part driven by changes in global demand and the tense geopolitical situation.¹⁷ At the same time, volatility in global gas markets is driving increases in the cost of electricity, with gas setting the price for all generators, resulting in businesses and domestic consumers not fully benefitting from the falling cost of renewables, a key barrier to electrification.

12. Consequently, it will be a key priority for the new Government to address the energy security and cost of living crises. Through its Energy Support Package, the previous Government put forward immediate relief to support households and businesses with high energy costs. However, more needs to be done to permanently and more predictably lower energy costs in order to ensure industry and households are not faced with uncertainty over future energy costs and the level of support that might be available to them going forward. As such, addressing the structural causes of high prices is essential.
13. There is now a unique opportunity for the incoming Government to lay the foundations for a modern and resilient energy system and prevent the UK from being exposed to further geopolitical risks and volatile fossil fuel prices. To bolster energy security and mitigate these impacts, it is essential that the UK's energy security strategy focuses on two key planks:
 - **Reducing fossil fuel dependence** by accelerating the transition to a low carbon energy system, driving more rapid investment in supporting grid infrastructure, reforming the wholesale market, so that energy costs can better reflect the ability to generate cheap renewable energy domestically; and
 - **Lowering demand for energy** through greater energy efficiency and demand flexibility measures across the economy. This will also be key to shave off peaks in demand that might be difficult to meet in the short term in the event of further gas supply disruption or unaffordability.
14. The economic benefits of pursuing this strategy are clear. In 2021, renewables generated just under 40% of the electricity in the UK, with 29% coming from wind and solar.¹⁸ This displaced around £6.1bn worth of gas, saving the equivalent of £221 of gas per household per year.¹⁹ With the cost of renewables falling with greater levels of deployment, they provide the UK with a key opportunity to bolster energy security in a cost-effective way.

¹⁶ FT (August 2022) "Europe and Asia intensify battle to secure gas supplies"

¹⁷ CEPA for BEIS (March 2017) A review of gas security of supply within Great Britain's gas market – From the present to 2035

¹⁸ Department of Business, Energy and Industrial Strategy (June 2022) *Energy Trends*

¹⁹ UK Onward (2022) *Renewed Importance: How investing in renewables cuts energy bills*

Reducing fossil fuel dependence

15. Building up a secure domestic supply of energy from renewable sources is an important way to bolster energy security, so accelerating progress towards the 50GW of offshore wind by 2030 and the 2035 target to generate all electricity from low carbon sources is critical. To date, government support for renewables through the Contracts for Difference (CfD) scheme has been pivotal in driving innovation, reducing costs and bringing online significant capacity, with 10.8GW of renewable energy at clearing prices as low as £37.35/MWh gaining contracts at the latest CfD auction round.²⁰ Going forward, it is essential to continue supporting the sector, which attracts record levels of investment into the UK, through annual CfD auctions with predictable and ambitious volumes, and clarity on Crown Estate seabed leasing rounds.
16. Increasing capacity in electricity grid infrastructure will be essential to enable the delivery of current offshore wind targets, bring online more UK-based renewable generation and avoid curtailment costs which cost UK consumers £282m in 2020²¹ due to the inadequacy of the energy system to support surplus capacity produced at times of high generation. This means that in 2020, 6% of Britain's wind output was wasted, which with the right network and storage capacity in place could have been stored to meet peak demand at times of low generation, or exported to continental Europe to boost the UK economy.²² Grid improvements will also be necessary to decarbonise the wider economy too – transport, heavy industry and many other sectors.
17. Current arrangements under the wholesale market are based on marginal pricing, with the most expensive generator needed to meet demand setting the price for electricity from all types of generating technologies. This is why, in spite of the falling cost of renewable generation, we are seeing climbing electricity prices, with gas as the marginal generator.²³ As such, it will be essential for government to analyse how best to decouple gas and electricity prices, and unleash the capability for UK renewables to deliver lower bills for industry and households.

Lowering demand for energy

18. Making energy efficiency in homes and infrastructure a priority will help to slash bills, improve energy security and create jobs. Despite the Government intervention through the Energy Price Guarantee, 19 million homes rated below the Government's target Energy Performance Certificate (EPC) C rating are set to pay £448 more on average per year for their energy than the 10 million living in homes at or above the threshold. By beginning to accelerate energy efficient measures now, the environmental and financial benefits of that investment will grow each year and the UK can avoid the sunk costs of holding energy prices for consumers.

²⁰ S&P Global (7 July 2022) "UK awards 10.8 GW new renewable capacity at record low strike prices"

²¹ Electric Insights: <https://reports.electricinsights.co.uk/q4-2020/record-wind-output-and-curtailment/>

²² Aldersgate Group, "[The Green Line: A route out of crisis and towards prosperity](#)" (Sept. 2022)

²³ Ibid.

19. Policy change that aligns with net zero goals will also support the public in becoming more energy efficient. Previous schemes like the Green Homes Grant, which were not underpinned by regulation, did not provide enough certainty to businesses to invest at scale, which is why they were hampered by a lack of skilled installers and shallow supply chains. Conversely, an example of where this has been successful can be noted in the automotive sector, where the phaseout of petrol and diesel cars has led to innovation and investment in EVs across all major European manufacturers.²⁴

NET ZERO POLICY PRIORITIES FOR THE NEXT TWO YEARS

20. Buildings

Representing 20% of UK total emissions in 2021, this sector has seen minimal progress in abatement given low levels of investment in energy efficiency improvements and low carbon heat rollout.²⁵ In the context of energy security concerns and the risk to large numbers of households of being pushed into fuel poverty following the price cap increases expected this winter, the main priority for government in the next two years should be to insulate as many buildings as possible and facilitate cost reductions and switches to more energy efficient heating solutions such as heat pumps. Government should therefore:

- a. **Accelerate deployment of heat pumps** to support the installation of at least 600,000 heat pumps per year to 2028 in line with the ambitions of the Net Zero Strategy and the CCC recommendations. Annual installation rates are currently at 55,000.²⁶ At scale deployment of heat pumps can also help cut demand for energy: heat pumps are more efficient than other heating systems, with the amount of heat they produce exceeding the amount of electricity they use.²⁷

To this end, the Boiler Upgrade scheme should be complemented by: (i) removing levies on electricity so that heat pumps are less expensive to run than gas boilers; (ii) introducing obligations on manufacturers to sell a growing number of heat pumps each year as the market matures; (iii) running public awareness campaigns to increase the understanding of climate and economic benefits of installing heat pumps and build trust in the technology; and (iv) providing suitable training for installers. For heat pumps to deliver genuine savings in cost, it is paramount that deep energy efficiency retrofits are pursued in parallel.

- b. **Mobilise private investment in energy efficiency improvements** through the use of regulation and fiscal incentives. With a supportive policy and regulatory framework that drives demand as well as investment in skills and supply chains, private finance instruments can be rolled out at scale to plug the funding gap. This includes approaches like quick modular retrofits through Energiesprong or property assessed clean energy (PACE) financing.²⁸ For those unable to pay, ensuring that recent

²⁴ Aldersgate Group, "[The Green Line: A route out of crisis and towards prosperity](#)" (Sept. 2022)

²⁵ CCC (July 2022) *Progress in reducing emissions: 2022 Progress Report to Parliament*

²⁶ *Ibid.*

²⁷ Energy Savings Trust: <https://energysavingtrust.org.uk/advice/in-depth-guide-to-heat-pumps/>

²⁸ Further private finance instruments for energy efficiency investment available here:

<https://www.greenfinanceinstitute.co.uk/programmes/ceeb-europe/>

cutbacks to the Energy Company Obligation (ECO) scheme²⁹ are reversed and further funding is allocated to help insulate as many homes as possible and reduce bills will be key. An expansion of the ECO scheme will be particularly important given that, with rising energy prices and the leakiest housing stock in Europe, more people in the UK will be pushed into fuel poverty.

21. Transport

Surface transport represents the largest emitting sector in the economy (23% of the total share of emissions), with the most significant reductions in the last two years attributable to behaviour change during the pandemic, rather than policy signals.³⁰ Whilst EV market penetration has been ahead of the curve (12% of the new car market sales in 2021 were EVs, ahead of the 8% trajectory required by CCC pathways),³¹ investment in charging infrastructure, support for upfront cost and a more competitive second-hand EV market will be required to drive further uptake.

Investment in public transport will be key to lowering emissions and congestion, but also to reducing exposure to rising fuel prices. Germany provides a good indication of the importance of promoting public transport as a response to rising fuel costs: its 3-month trial to sell €9 tickets for a month's unlimited travel on regional train networks, trams and buses saved about 1.8m tons of CO₂ emissions. Of the 52 million tickets sold, a fifth were bought by people who did not ordinarily use public transport.³² As such, the Government should:

- a. **Support the deployment of local on-street charging and rapid charging points along the strategic road network.** This should be achieved by starting the allocation of the Rapid Charge Fund as soon as possible, and by implementing the EV Infrastructure Strategy to support local authorities to develop an integrated EV infrastructure, ensuring charging provisions are evenly distributed across the country. When installing chargepoints, especially along motorways, it is key to consider the needs for HGV charging too and expand the Fund appropriately, since this will save costs related to grid connections and capacity in the longer run, as well as incentivise greater take up of electric HGVs.³³

In addition, the Government should drop the rate of VAT on electricity from public chargepoints from 20% to 5%, to align with the rate that domestic users pay. This is essential from a levelling up perspective, as currently EV owners in more affluent neighbourhoods with dedicated off-road parking spots can use their domestic electricity (5% VAT-rated) to charge their vehicles, while people living in areas without off-street parking will be more reliant on the public charging infrastructure (20% VAT-rated).

- b. **Provide cost support for EVs through a successor for the Plug-in Car Grant and by growing the second-hand EV market through fiscal incentives and**

²⁹ Bloomberg (29 July 2022) "UK Scales Back £1 Billion Funding to Help Homes Cut Energy Use"

³⁰ CCC (July 2022) *Progress in reducing emissions: 2022 Progress Report to Parliament*

³¹ *Ibid.*

³² The Guardian: <https://www.theguardian.com/world/2022/aug/30/germanys-9-train-tickets-scheme-saved-18m-tons-of-co2-emissions> (August 2022)

³³ National Grid, *Supporting the growth of clean transport: Decarbonising Heavy Goods Vehicles on the Strategic Road Network* (May 2022)

battery health certifications. Following the scrapping of the Plug-in Car Grant, the UK is now the country with the most ambitious targets for phasing out internal combustion engine (ICE) vehicles, which offers no cost support for purchasing cleaner vehicles. As early adopters of EVs tend to come from more affluent segments of the population, it is essential that those less well-off are also able to access support for upfront cost when making the switch.

In addition, access to more affordable and reliable second-hand EVs will be important. Second-hand EVs are currently not an attractive purchase because of the relatively small cost difference between used and new cars as prices for new models continue to decrease. Compared to used ICE vehicles, second-hand EVs tend to be more expensive (the average cost differential between the two is around £10,000), making low-income households – who are most likely to buy second-hand – opt for an ICE vehicle.

Supporting the second-hand market is crucial to enable mass adoption, offering feasible and reliable options for lower income households and minimising the need for raw materials going into new batteries. Fiscal interventions such as interest-free loans, VAT rebates or grants to help meet the upfront cost will be required. In addition, battery health certificates and investment in skills for battery repair technicians will be needed to instil confidence in the longevity of used EVs, especially as the bulk of an EV's value is dictated by the battery.

- c. **Invest in public transport routes and promote the uptake of bus and train journeys, as well as active travel** to reduce congestion and minimise household exposure to rising fuel prices. In addition, it will be key to promote measures aimed at increasing road vehicle **occupancy**, including incentives for pooled mobility and car sharing models or mobility hubs to support a shift from private vehicle ownership towards public mobility as a service.

22. Power

More frequent CfD auctions, economies of scale and falling costs of generation have seen renewables capturing a growing share of the market and generating 42% of the UK's electricity in 2020.³⁴ To generate all electricity from low carbon sources by 2035, as per the Government's target, it will be essential to maintain regular and predictable CfD auctions, and to invest in grid infrastructure and connections. Government must also review electricity market arrangements to ensure the renewable-dominated future system is cost-effective, secure and flexible. As such, the Government should:

- a. **Provide clarity on the frequency and volumes for future CfD auctions and Crown Estate leasing rounds**, with clear support for deploying Pot 1 technologies like solar and onshore wind, which are the cheapest forms of generation. Ensuring market access for onshore wind will help the development of the offshore wind industry; in other European countries like Germany and the Netherlands, simultaneous investment in both industries helped leverage innovation, skills and supply chains, which are similar.

³⁴ The Guardian: <https://www.theguardian.com/environment/2021/jan/28/uk-electricity-from-renewables-outpaces-gas-and-coal-power> (January 2021)

- b. **Complete a review of the planning and consenting regime** to ensure transmission infrastructure is delivered in a timely way and constraint costs are reduced.
- c. **Develop an integrated framework for delivering community benefits** to ensure areas hosting nationally significant or key infrastructure (such as transmission pylons or overhead lines) are incentivised to do so and are offered useful benefits. It will be particularly important to have this unified framework as certain communities could be required to host infrastructure developments from more than one sector, such as water and power.
- d. **Respond to the Review of Electricity Market Arrangements (REMA) consultation** as soon as possible, to offer clarity on next steps for delivering a net zero wholesale market, incentivise additional renewable generation through accurate price signals and reward flexibility of supply and demand.

23. Industry

With the publication of the Industrial Decarbonisation and Hydrogen strategies, the pathway for decarbonising foundational industries and manufacturing is now much clearer compared to when the UK's net zero target was set. Whilst the clusters framework has been critical in accelerating investment in low carbon hydrogen and Carbon Capture and Storage (CCS), incentives to pursue emissions reductions through resource and energy efficiency and greater electrification are more limited. In addition, pathways for decarbonising industrial locations outside of clusters are still unclear. Crucially, a challenging economic context, exacerbated by high energy costs, are rendering many energy intensive sectors unable to deliver the CAPEX investment required to decarbonise. Greater focus is needed to create a favourable climate for mobilising private investment into low carbon industry and manufacturing. Government should therefore:

- a. **Implement key measures to reduce industrial electricity prices**, which even before the energy crisis were between 25%–44% above the EU average, deterring investment into the UK. This could be pursued through the REMA consultation – and even piloted before the reform package is finalised, by creating a market for long-term, zero carbon and tradable electricity contracts that can be sold to sectors like steel, cement or chemicals, which would benefit for urgent action on electricity prices.

In the medium term, standardised structures of long-term, tradeable zero carbon electricity contracts should be made available to business consumers, grounded in the declining cost of unsubsidised renewable electricity sources. Consumers holding these contracts would thereby avoid the indirect costs of carbon prices, and the volatility of fossil fuel prices. This could be facilitated through a **green power pool, operated in parallel to the electricity spot market.**³⁵ Matching supply in the green power pool with demand from energy intensive sectors like steel could provide a testbed for reforming market arrangements, as currently consulted on until October 2022 as part of REMA.

³⁵ UCL, *Delivering competitive industrial electricity prices in an era of transition* (October 2021). In 2022, Aldersgate Group and UCL are doing further research to see how a green power pool could be implemented as soon as possible, to benefit industrial and domestic users in a challenging energy crisis context.

- b. **Develop a clear roadmap for decarbonising dispersed sites**, maximising the benefits of innovation and economies of scale in industrial clusters. This should be achieved by working with local authorities and local enterprise partnerships to ensure these locations are, over time, connected to CCS infrastructure and hydrogen production sites.³⁶ It is also essential to maximise the potential for these sites to reduce emissions through resource and energy efficiency by providing innovation funding that is not focused just on CO2 reductions as this will be essential to avoid backloading emissions reductions until key technologies like CCS or low carbon hydrogen become available.
- c. **Finalise the business models for hydrogen and CCS transmission and storage by introducing the required secondary legislation through the Energy Bill**, and commit to more ambitious allocation timelines to enable businesses to effectively plan investment. A roadmap for meeting the 10GW of low carbon hydrogen by 2030 will also need to accompany business models. In addition, providing clarity on the level of ambition and support for low carbon hydrogen production post-2030 will be key to ensure continuity of investment into the UK hydrogen market.
- d. **Develop demand-side measures to grow the market for low carbon and resource efficient industrial goods**, including by creating public procurement mandates to buy low carbon and resource efficient materials and assets. Developing mandatory product standards will also help to gradually drive down the permissible level of embodied carbon and lifecycle emissions in industrial products. To ensure these standards are achievable, close consultation with businesses across the value chain will be required.
- e. **Support industrial digitalisation through innovation funding and incentives**, to allow for at scale data collection on energy usage and enable energy demand reduction by optimising the use of existing assets, such as furnaces.³⁷ This data will also be critical in enabling industrial flexibility and permanent demand reduction, representing a key tool in balancing the system.

24. Nature restoration

With the passage of the Environment Act, the new Office for Environmental Protection, and the development of the Environmental Improvement Plan for England, we are seeing good progress in setting up a more joined-up framework for restoring nature and tackling pollution. Further policy detail is now needed to create the right incentives and market mechanisms to attract private investment into natural capital, and should be supported by clearer targets to set a floor for ambition in restoring key ecosystem services. Government should:

³⁶ Further details on how both types of locations can be decarbonised effectively are included in our recent report commission: Frontier Economics for Aldersgate Group (September 2021) *Accelerating the decarbonisation of industrial clusters and dispersed sites*

³⁷ This has yielded carbon reductions of 15.6 thousand tonnes a year for glass manufacturer Encirc, through the installation of a new, intelligent end-to-end process control system that optimises furnaces to run at minimum viable energy, saving emissions, costs and improving productivity. Further details available here: <https://www.glass-futures.org/innovation-technology-has-deep-impact-in-carbon-reduction-for-encirc>

- a. **Ensure that the first Environmental Improvement Plan for England includes tangible policy and regulatory underpinnings.** In order to provide a framework that mobilises private sector investment, it is vital that the Government builds on the vision set forth in the 25 Year Environmental Plan and ensures that the first Plan provides a clear direction of travel and next steps for the delivery of key environmental objectives. The Plan should give businesses clear sectoral roadmaps, including across agriculture, water, infrastructure and manufacturing.
- b. **Finalise the long-term environmental targets on air quality, biodiversity, water, resources and waste** ahead of the October deadline. With some adjustments to ambition, filling-in of gaps, and close alignment with wider policy frameworks, the Government could secure a truly world-leading legal framework of environmental objectives.
- c. Ensure that the **Environmental Principles Policy Statement embeds environmental considerations into policymaking across all departments**, and look to implement the Statement as soon as possible.

25. Resource efficiency

Despite a suite of policy proposals dating back to 2018's Resources and Waste Strategy, policy progress in this area has been slow, with a lack of both cross-departmental collaboration to embed resource efficiency into policymaking and strategies targeted at decarbonising sectors like transport, industry or manufacturing. To accelerate this agenda, Government must:

- a. **Prioritise the implementation of measures in the Waste Prevention Programme and increase their ambition to embed resource efficiency at the early stages of the product lifecycle and the waste hierarchy**, with a particular focus on better product design, waste prevention, material re-use and remanufacturing. To achieve this, progress will need to be delivered on development of mandatory product standards and labelling schemes, ambitious fee modulation for Extended Producer Responsibility schemes focused beyond packaging to include industrial products and wastes,³⁸ and an escalator for the plastics tax.
- b. **Offer support so that resource efficient products can compete on upfront cost, to ensure prices better reflect the whole lifecycle of the product.** As part of this, fiscal incentives for circular products and services will be needed, such as reduced VAT or business rates and reduced taxes on repair and reconditioning. In addition, developing resource efficiency criteria for public procurement will be essential to scale up more resource efficient business models and grow the market for circular products - a strong signal given the £290 billion a year spent by the UK Government on public procurement.³⁹

³⁸ Aldersgate Group, *The Missing Link: Establishing Strong UK Supply Chains for Low Carbon Industrial Products* Group (March 2022)

³⁹ Cabinet Office, *Transforming public procurement* (2020)

- c. Provide **targeted public finance** – such as through the UK Infrastructure Bank and future green sovereign bond issuances – **to support the development of critical infrastructure and facilities** for recycling, repair, remanufacturing and reuse.
- d. Conduct public awareness campaigns to build consumer confidence and **grow the demand for resource efficient products and business models** (such as those based on ‘servitisation’, i.e. leasing and subscription) and disincentivise demand for disposable business models such as fast fashion. Introducing national repair standards will also be critical in boosting consumer confidence in second-hand products.

26. Green finance

New regulation under the new Sustainability Disclosure Requirements and the introduction of mandatory transition plans for listed companies represent important steps in helping the UK become the world’s first net zero-aligned financial centre. In addition, the publication of the Net Zero Strategy and underpinning sectoral decarbonisation pathways have been instrumental in mobilising private capital into low carbon technology and infrastructure. Whilst a robust policy framework is already in place to start greening the financial system and direct finance towards green, the updated Green Finance Strategy (now expected in early 2023) should look at accelerating progress in this area and plugging some key gaps in policy. This should include:

- a. **Supporting businesses and financial institutions to better understand the technicalities involved in the new reporting and disclosure requirements.** This should involve government, regulators and other relevant bodies (such as trade representatives) setting out guidance on, for example, how to produce a good net zero transition plan, and how to conduct scenario analysis to identify climate risks.⁴⁰
- b. **Ensuring, insofar as possible, that UK green finance reforms are internationally compatible** at the European Union and global level, to minimise reporting burden to businesses operating across jurisdictions. A degree of compatibility with EU standards is important given that the EU remains the largest investor into the UK ahead of the US, and the largest market for UK investors before the US.⁴¹ A UK Net Zero-aligned Financial Centre may want to go beyond European and global standards when this is scientifically desirable but must maintain a minimum amount of interoperability with EU and key global standards and regulations.
- c. **Utilising public finance tools to de-risk climate-related investments and crowd in private finance to the infrastructure, technologies and markets needed to accelerate the low carbon transition.** Government should look to issue an additional round of green sovereign bonds. This should be supplemented by continuing to strategically allocate capital available through the UK Infrastructure Bank in order to grow new markets in line with delivering the sixth Carbon Budget – in particular, building retrofits and natural capital markets.

⁴⁰ Aldersgate Group, *Building a UK Net Zero-aligned Financial Centre: what next?* (June 2022)

⁴¹ Office for National Statistics, *Foreign direct investment by ultimate controlling economy, UK trends and analysis* (July 2021)

27. Skills⁴²

Setting up the Green Jobs Taskforce has been a welcome first step in putting skills development on the agenda of key departments as the net zero transition is underway. Ensuring that the recommendations of the Taskforce, which have received significant cross-sector business support, are implemented as a matter of priority will be key in helping transition those already in work into low carbon sectors and prepare the future workforce for the needs of employers operating in a net zero economy.

A well-designed action plan on skills would also help mitigate skills shortages prevalent across the economy and which are already impacting businesses; even before the pandemic, skills shortages were affecting an estimate of 91% of UK organisations,⁴³ with costs of £6.3bn to businesses needing to cover additional recruitment fees, training or temporary staffing.⁴⁴ These skills shortages have also led to organisations being less agile and less able to adapt to a changing political, economic and technological climate. This is why developing a good match between skills supply and demand should be a key priority for the new Government. It should seek to:

- a. **Develop a national low carbon skills strategy that embeds sustainability and net zero delivery across the whole education system**, including apprenticeship programmes, higher education and lifelong learning. This should be complemented by action to make the adoption of skills action plans mandatory for all educational providers, including further and higher education.
- b. **Work with businesses and investors to accelerate the creation of partnerships between universities, advanced manufacturing institutes, and government research institutions all around the UK, to drive skills development and levelling up.** Many areas in the Midlands and the North of England have strong education institutions, established during the industrial revolution, and these will need adequate funding to ensure they can play their crucial role in skilling and reskilling as part of a coherent levelling up and net zero agenda.
- c. **Continue to provide financial support for training, upskilling and retraining through the National Skills Fund** in order to support workers already in the job market and in need of reskilling. This should be matched by Further Education Institutions offering a broader range of flexible, short-term courses focused on the climate and resource efficiency-related skills workers will increasingly need.

⁴² For further recommendations see Aldersgate Group (October 2020) *Upskilling the UK workforce for the 21st century*

⁴³ Open University blog: <http://www.open.ac.uk/business/apprenticeships/blog/uk-skills-shortage-costingorganisations-%C2%A363-billion>

⁴⁴ *Ibid.*