Building a competitive, net zero emissions and climate-ready economy

An Aldersgate Group manifesto

July 2019

Sustainable is competitive – the case for a zero carbon economy

The Aldersgate Group is an alliance of major businesses, academic institutions and civil society organisations, which drives action for an environmentally sustainable and competitive economy. Our corporate members, who come from across the economy and have a collective global turnover in excess of £550bn, recognise that an early move to an environmentally sustainable, resource efficient and net zero emissions economy can offer significant competitiveness and industrial growth benefits to the UK if supported by a timely and comprehensive policy package.[1]

The economic case

Well-developed, ambitious and properly enforced environmental regulations make good economic sense, and can have positive ripple effects across the economy, in the form of increased investment in skills, research and innovation, as well as market and job creation. They can also benefit the economy through the creation of new export opportunities in environmental goods and services. This has been well-illustrated recently in the construction, automotive and waste industries, where the implementation of environmental regulations acted as a catalyst to growth.[2]

Currently, low carbon businesses have a direct and indirect combined turnover of £79.6bn, directly employing 396,200 people.[3] The low carbon and renewable energy sector grew by 5% in 2016, while the rest of the economy grew by only 1.8%.[4] Under the previous 80% emissions reduction target, it was estimated that the UK low carbon economy could grow from around 2% of UK Total Output in 2015 to up to around 8% by 2030, and around 13% by 2050.[5] These benefits could become more pronounced under the UK's new net zero target. In addition, business trials that the Aldersgate Group was recently involved in show that the move to a more resource efficient economy can have significant positive impacts on the UK economy and deliver an increase of up to £76bn in Gross Value Added by 2030, whilst also improving resource security.[6]

[1] Recommendations made in this response cannot be attributed to any single organisation and the Aldersgate Group takes full responsibility for the views expressed.
[2] Aldersgate Group commissioned a report from BuroHappold, which shows that well-designed environmental regulations are compatible with a thriving business sector, with examples from the construction, waste and automotive industries. BuroHappold Engineering (December 2017) *Help or Hindrance? Environmental Regulations and Competitiveness*
[3] ONS (31 January 2019) "Low carbon and renewable energy economy, UK: 2017"
[4] BusinessGreen (31 January 2018) "Official: UK low carbon sectors growing at almost treble the rate of the wider economy"
[5] Ricardo Energy & Environment (March 2017) *UK business opportunities of moving to a low carbon economy*
[6] Aldersgate Group (19 June 2018) "No Time to Waste: the government must use Brexit to make the UK a world leader in resource efficiency"

Public opinion and social trends

The societal context is ripe for driving action to cut pollution, reverse the decline of the natural environment and achieve a net zero emissions economy. An Ipsos Mori poll[7] shows that climate change and concerns around waste, emissions, water and air quality are increasingly prominent on the public agenda, with many citizens, as well as the private sector, seeing a clear role for government in addressing these problems.[8]

Businesses across the country are more willing than ever to showcase their corporate citizenship, rallying behind the adoption of a net zero target and supporting coherent and pragmatic policies to achieve it.[9] Alongside these trends, increasing pressure from investors and the public has led to accelerated divestment from fossil fuels and carbon-intensive industries, representing billions of pounds of capital.[10] Institutional investors are also taking unprecedented action in divesting from large companies unwilling to act on climate risks.[11]

The international context

Global trends and investments in low carbon solutions are overall on the rise, especially at an EU-level. In Europe, clean energy investment increased by 27%, totalling $74.5bn in 2018.[12] On a global level too, investment in clean energy exceeded $300bn for the fifth year in a row in 2018,[13] while investment in coal and gas power has been declining as a result of decreased spending in China and India, but also in the US and the MENA region.[14] In the US, investment in clean energy hit a record $64.2bn in 2018,[15] and China is continuing to play a major role in the market dynamics of the energy transition, driving down costs for solar, growing its offshore wind and EV markets, and increasing venture capital and private equity investments.[16]

To increase its competitiveness in the growing market for low carbon infrastructure, goods and services, the UK must put forward an ambitious domestic policy agenda to grow private investment and ensure that low carbon trade and green finance are at the heart of forthcoming trade negotiations.

The framework is already in place to deliver a prosperous zero carbon economy, with the government having recently legislated for a net zero target by 2050 and committed to introducing an ambitious Environment Bill in the autumn. This follows the publication of the Clean Growth Strategy, the Resources and Waste Strategy and the Green Finance Strategy.

[7] Ipsos Mori (April 2019) *Climate Change Increases in Importance to Citizens Around the World*
[8] Aldersgate Group blog (4 April 2019) "Business say: net zero? Get on with it"
[9] Aldersgate Group (31 May 2019) "More than 130 leading businesses urge UK Government to legislate for 2050 net zero economy"
[10] BusinessGreen (30 July 2019) "Royal College of Emergency Medicine and Royal Society of Arts quit fossil fuel investments", The Guardian (4 July 2019) "National Trust to divest £1bn portfolio from fossil fuels"
[11] Reuters (21 June 2019) "Investor LGIM dumps ExxonMobil from its Future World funds"
[12] Bloomberg NEF (16 January 2019) "Clean Energy Investment Exceeded $300 Billion Once Again in 2018"
[13] Ibid
[14] https://www.iea.org/tcep/ [30 July 2019]
[15] S&P Global (16 January 2019) "US clean energy investment hits record $64B in 2018 amid global decline"
[16] Bloomberg NEF (16 January 2019) "Clean Energy Investment Exceeded $300 Billion Once Again in 2018"

However, with urgent action needed to put the UK on a credible pathway to net zero emissions and major environmental summits taking place in 2020, the government must take decisive actions and provide greater policy detail in the following key areas:

- **Delivering a Clean Growth Strategy Plus** (CGS+) that matches the ambition of the net zero target. This should consist of a targeted update to the existing Clean Growth Strategy to increase ambition where required (for example on zero emission vehicle roll-out). Plus it should incorporate concrete policies that accelerate private sector investment to decarbonise priority sectors such as surface transport and buildings and support the competitiveness of industry during this transition.
- **Passing an ambitious Environment Bill** that safeguards environmental protections currently enshrined in EU law and sets ambitious and legally binding targets for environmental improvements in line with the vision of the 25 Year Environment Plan.
- **Implementing the Resources and Waste Strategy**, through the introduction of detailed regulatory measures and fiscal incentives that drive greater resource efficiency and cut waste across the economy.
- **Building on the Green Finance Strategy**, to rapidly grow private capital flows into the green infrastructure required to deliver the UK's net zero target and the objectives set out in the 25 Year Environment Plan.

1. DELIVERING A CLEAN GROWTH STRATEGY PLUS[17]

The government's current Clean Growth Strategy is rightly based on the premise that cutting emissions can work hand in hand with economic and employment growth across the country. However, the ambitions of the CGS will need to be ramped up, and its delivery accelerated if the UK is to hit net zero emissions by 2050.

This is why the Aldersgate Group is advocating for a targeted update to the Clean Growth Strategy in the form of a 'CGS+' to ensure the UK economy is on a pathway that is in line with the ambition of the net zero target. This would consist of updating emission reduction ambitions for key sectors where relevant (for example by bringing forward the phase out date for the sale of petrol and diesel cars) and in putting forward concrete policy recommendations to accelerate private sector investment in priority sectors where there is currently a policy gap. This includes urgent action required in buildings, surface transport and industry.

A Clean Growth Strategy Plus should prioritise:

Tackling low-regret policy options

The government should aim at a minimum to meet the fourth and fifth carbon budgets, and preferably overachieve them. The most feasible and cost-effective way to do this is through:

1. **Completing the decarbonisation of the power sector**. The offshore wind sector is a great example of what can be achieved with the right combination of policy certainty, investment and market mechanisms.

[17] Aldersgate Group will publish a briefing in the autumn, with further policy recommendations for delivering a Clean Growth Strategy Plus.

Beyond supporting the continued growth of offshore wind through regular and predictable auctions throughout the 2020s, we urge the government to:

a. Secure a **route to market for mature forms of renewable energy** such as onshore wind, through a resumption of Pot 1 CfD auctions in the short-term and the establishment of a market of zero carbon tradeable electricity contracts in the medium term. Greater access to mature renewables is an essential part of delivering competitive industrial electricity prices.[18]
b. Maintain good **access to the Internal Energy Market** and support continued investment in interconnection, so that the UK remains plugged into the much larger EU market, thereby ensuring price competitiveness.
c. Grow the market for flexibility options, such as increased storage capacity and greater use of demand side response to create a reliable and low carbon power network as more renewable energy is deployed.
d. **Resume the carbon price escalator** in the 2020s as coal comes off the system to offer a clear direction of travel for businesses and offer long-term incentives for investment in low carbon alternatives.

2. **Decarbonising surface transport**[19] as a matter of urgency, given that it is the only sector where emissions have been on the rise for the past few years. Key areas of focus should include:

   a. Accelerating the **roll-out of electric vehicles** by bringing forward the phase out date for the sale of petrol and diesel vehicles to 2030, guaranteeing the availability of plug-in vehicle grants until upfront cost parity is reached and introducing gradually tighter vehicle emission standards throughout the 2020s.
   b. Continuing to **support investment in charging infrastructure** across the country, focusing public funding where market conditions are more difficult such as in rural areas.
   c. Working with local government to **introduce ambitious and consistent Clean Air Zones (CAZs) across the UK**. Certainty around the location of CAZs, charging levels, exemptions and support packages will send a clear policy signal, driving the demand for cleaner forms of transportation.

[18] A UCL report commissioned by Aldersgate Group looks at industrial energy prices and the market barriers for mature forms of renewable energy and shows how government can play a role in keeping prices for renewables, especially electricity, competitive. UCL (February 2018) *Removing barriers to mature renewables key to lowering industrial energy prices*

[19] For more detailed policy recommendations on decarbonising surface transport, see Aldersgate Group (March 2019) *Shifting emissions into reverse gear: priorities for decarbonising transport*

d. Developing an **integrated surface transport strategy**, which brings together road and rail strategies and supports investment towards infrastructure with the most efficient economic, passenger travel and emissions outcomes.
e. **Promoting key modal shifts** such as through moving freight from road to rail.
f. Working with early movers in industry to develop business-friendly **solutions to fleet decarbonisation**.

3. **Decarbonising buildings**. Heating UK homes and providing access to hot water amounts to 40% of national energy consumption and 20% of GHG emissions.[20] The majority of UK residential and non-residential homes rely on gas for heating, so decarbonisation of buildings should focus primarily on:

a. **Improving energy efficiency of all homes**. For existing homes and commercial buildings, this means putting in place binding regulatory standards to mandate energy efficiency improvements, backed by fiscal incentives such as stamp duty adjustments and VAT rebates. Regulatory drivers could include operational energy targets and for the privately rented sector, a tightening of the Minimum Energy Efficiency Standards (MEES). For new homes, this means developing the Future Homes Standard as announced in Budget 2019, which requires buildings to be designed at high levels of energy and cooling efficiency and which are directly connected to low carbon forms of heating.

b. **Trialling at-scale zero carbon alternatives to natural gas** (including electric heat pumps, low carbon district heating and hydrogen) and quickly rolling them out. According to the Committee on Climate Change (CCC), alternative technologies will need to be deployed at scale by 2030 if the UK is to meet its net zero target by 2050.[21] The government needs to collaborate closely with business and local authorities to assess the best technological choices based on cost, local specificities and existing infrastructure. Regardless of the technology mix, government will play a fundamental role in **coordinating the nation-wide roll-out of low carbon heat infrastructure**.

Supporting innovation at scale and investing in ultra-low carbon technology deployment

The short timescale for achieving net zero means we need to use existing technologies in a smarter way and go ahead with large scale trials of critical technologies that are still at an early stage of development. It is clear from Aldersgate Group engagement with a wide range of industry sectors that the UK's innovation policy needs to move beyond the fear of failure and be based on the recognition that successful and unsuccessful trials offer equally important lessons for good policy making. As set out in recent research commissioned by the Aldersgate Group,[22] priorities should include large scale trials in the following areas: the conversion of the gas grid to hydrogen for heating, Carbon Capture and Storage in industry (and in particular industrial

[20] Committee on Climate Change (October 2016) *Next steps for UK heat policy*
[21] Committee on Climate Change (May 2019) *Net Zero: The UK's contribution to stopping global warming*
[22] A Vivid Economics and UKERC report commissioned by Aldersgate Group looks at case studies of innovation that was deployed in an exceptionally rapid way and considers the lessons we can apply to the current challenge. Vivid Economics & UKERC (April 2019) *Accelerating innovation towards net zero emissions*

clusters), waste-based biofuels for aviation and shipping, next generation offshore wind and Direct Air Capture technology.

A more ambitious innovation policy should be developed hand in hand with market mechanisms that grow the demand for new ultra-low carbon goods and services. For example, product standards driving down embedded carbon in building materials such as steel and cement will grow the market for ultra-low carbon cement and steel whilst also protecting UK businesses from high carbon imports.

Addressing the skills gap for a sustainable and just transition

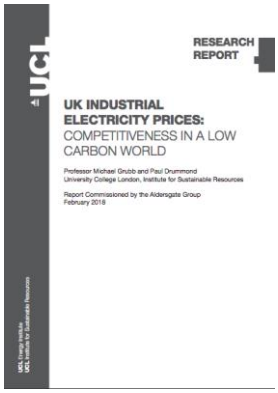
The necessary change of business models and technologies to meet net zero emissions is an opportunity to deliver a net job increase in the UK. However, the zero carbon transition will likely result in a change of the nature, required skills and location of some jobs in the UK, creating transition risks for the UK workforce – particularly workers in energy intensive industries. Research by the Grantham Research Institute has found that around 10% of workers in the UK have skills that could be more in demand in the green economy, while another 10% of workers, particularly in construction, transport and manufacturing are likely to need reskilling – making up around six million people directly affected by the green economy, with impacts felt particularly in the East Midlands, West Midlands and Yorkshire and the Humber.[23]

To manage social transition risks, the government should identify parts of the low carbon economy where the UK is particularly well placed to grow its supply chains, and in which geographic areas these jobs are likely to be created. This should be mapped against how sectoral transition pathways are likely to impact on employment, with plans made accordingly to support the growth of new industries with similar skill sets as declining industries in the same parts of the country. There are already successful examples of this transition, with over one third of marine engineers working in offshore renewables transitioning from the oil and gas sector.[24]

To ensure the UK's future workforce has appropriate skills for the zero carbon economy, the government should integrate sustainability at all levels of the educational system, in the national curriculum, apprenticeship programmes, higher education and in particular through lifelong learning, which provides a natural platform for workers to adapt to new technologies and industries. Engaging with low carbon industry on their future skills needs will help to ensure the UK has an attractive pipeline of skilled workers for new and growing industries.

[23] Grantham Research Institute on Climate Change and the Environment (February 2019) *Investing in a just transition in the UK: How investors can integrate social impact and place-based financing into climate strategies*
[24] The Telegraph (11 September 2016) "Former North Sea oil workers are finding a second wind in renewables"

To access Aldersgate Group's full policy recommendations for decarbonising the power and transport sectors and achieving net zero, please click below:



2. PASSING AN AMBITIOUS ENVIRONMENT BILL

The first Environment Bill in over 20 years is a unique opportunity to safeguard environmental protections currently enshrined in EU law and cement the UK's reputation as a world-leader in environmental action by adopting ambitious and measurable targets for improving the state of the natural environment. The government's ambition should be to create an Environment Bill that is as robust and long-term-focused as the Climate Change Act and has as its clear objective the reversal of the decline of our natural environment and the improvement of our natural capital.

Work to improve the Draft Environment Bill should continue, building on the recent Environment Bill summer policy statement.[25] It must create a comprehensive legal framework that holds government to account and ensures businesses have the confidence to invest in environmental improvements in the future. Key priorities should include:

1. **Setting an overarching objective to significantly improve the state of the natural environment, supported by a comprehensive set of measurable targets in secondary legislation.** The Bill should therefore include a target-setting process that will allow specific measurable targets to be set covering key areas such as air, water, soils, peatland, biodiversity and resource efficiency, based on independent advice and underpinned by clear metrics and milestones. This process should be subject to parliamentary scrutiny and approval.

   Legally-binding targets will provide much needed long-term policy certainty, which will help guide business investment decisions and provide the market signals needed to increase affordable private sector investment in the natural environment.[26]

2. **Environmental principles that directly guide policy-making.** We were pleased that the government committed to

[25] Defra (23 July 2019) "Environment Bill summer policy statement: July 2019"
[26] Letter to the editor of the Sunday Telegraph (4 November 2018) "Greener business"

enshrine in UK law the environmental principles currently found in EU treaties that have been used to guide the development of environmental law and policy. Businesses would like to see robust and consistent application of these principles embedded across government decision-making. The associated policy statement to guide the interpretation and application of the principles, and any future updates, should be subject to public consultation and presented to Parliament for scrutiny and approval.

3. **A well-resourced and independent Office for Environmental Protection (OEP) with effective powers to enforce environmental law.** The OEP should be set up so that it operates independently of government (both in terms of appointments and allocation of financial resources). Clear government accountability to the OEP will provide businesses with confidence in the UK's new environmental regulatory regime. There should be an enhanced role for Parliament in the appointment and budget-setting process with, at the very least, the chairs of the House of Commons EFRA Committee and Environmental Audit Committee involved in the appointment of the OEP's chair and a pre-appointment hearing being held. However, further consideration should be given to alternative models such as how the National Audit Office is funded by and accountable to Parliament.

   Furthermore, there is still more work to be done to ensure that the system to enforce environmental law is as robust when the UK leaves the EU as it is now. The enforcement proposals in the Draft Environment Bill should be enhanced, for instance by making the OEP's decision notices binding or via the introduction of a bespoke enforcement procedure.

4. **The enforcement remit of the OEP to cover climate change legislation.** There is no doubt the CCC should remain the gold standard body for assessing climate risk and advising the government on how to adapt to climate change and deliver the UK's climate targets. However, the OEP should be able to use the CCC's assessments and fulfil a complementary set of functions in careful coordination with the CCC, namely on enforcement of climate legislation where the CCC has no powers.

3. IMPLEMENTING THE RESOURCES AND WASTE STRATEGY

The move to a more resource efficient economy is not only important to cut waste but is also an essential part of building a competitive and net zero emissions economy. However, businesses have historically faced a series of obstacles in driving resource efficiency, such as regulatory barriers (e.g. rigid interpretations of the definition of 'waste'), lack of supportive market signals (e.g. resource efficiency product standards and fiscal incentives) and lack of technical support needed to drive innovation.[27] The government's Resources and Waste Strategy (RWS) and its recent Environment Bill summer policy statement acknowledged many of these barriers and provide an encouraging sense of direction for future policy making.

The focus must now be to implement the RWS in detail. Priorities should include:

1. **Standardising waste treatment and recycling practices.** Government should build on its recent consultation on standardising business and household waste collections and work with local authorities and the waste management industry to drive greater standardisation of waste and recycling policy across administrative borders.
2. **Introducing regulations to drive greater resource efficiency in product design** is essential, as 80% of a product's environmental impact is determined at the design stage.[28] The role of policy is to create incentives for producing goods with lower embodied carbon, that require less water to produce and are durable, repairable and recyclable. The government should build on the commitments in the recent Environment Bill policy statement to bring forward legal powers to introduce resource efficiency product standards and focus on rolling these out across critical product types such as batteries, tyres and electronic goods.
3. **Introducing tax adjustments to ensure upfront price competitiveness of resource efficient goods and services.** Where resource efficient products, or products made with secondary materials, struggle to compete on upfront cost, pricing mechanisms need to be adjusted to reflect the longer-term environmental and economic benefits derived from using more resource efficient methods of production. These should include:
    a. **VAT and other tax rebates** on resource efficient products.
    b. Resuming the **Landfill Tax escalator** and ensuring the police and the Environment Agency have adequate resources to tackle waste crime.

[27] The EU Life + funded REBus project, of which Aldersgate Group was a member, looked at the economy-wide benefits of resource efficiency and specific challenges that businesses face in attaining this. The project ran 30 pilot schemes to help businesses from different sectors in the UK and the Netherlands adapt their business model, making it more attuned to the principles of the circular economy. Aldersgate Group (January 2017) *Amplifying Action on Resource Efficiency: UK Edition*. All case studies can be found here: http://www.rebus.eu.com/resources/case-studies/

[28] Aldersgate Group (June 2018) *No time to waste: an effective resources and waste strategy*

c. Including powers in the Environment Bill to introduce **Extended Producer Responsibility (EPR) schemes**, finalising work on the development of an **EPR** scheme for packaging and rolling out similar schemes to other critical types of products such as batteries, tyres, vehicles and electronic products.

d. **Adjusting public procurement rules to increase the size of the market for resource efficient goods.** With public procurement market valued at £284bn in 2017/18,[29] there is real scope for government to drive demand for more resource efficient infrastructure, goods and services and lead by example. To this end, government policy should embed sustainability factors and resource efficiency in procurement and commissioning guidelines and ensure that procurement teams have the necessary expertise to be able to identify more resource efficient business practices and assess their long-term benefits.

4. **Supporting innovation in resource efficient business models by providing both public funding and free technical support.** For example, the government should build on the Faraday Challenge to ensure UK manufacturers are provided with sufficient innovation funding to improve the sustainability of vehicle batteries by making them fit for re-use.

5. **Supporting knowledge sharing across economic sectors.** Knowledge sharing between businesses operating within and across different sectors can generate cost-effective ways of reducing the amount of waste that ends up in landfill. It can also enable particular businesses to provide its waste to others that have the technology and expertise to reintroduce it into their production cycle (known as industrial symbiosis). The government should establish facilitated forums to support this, following the example of the previous National Industrial Symbiosis Programme (NISP).

To access the Aldersgate Group's full policy recommendations for achieving better resource efficiency and waste management, please click below:

[29] The Institute for Government & Gowling WLG (December 2018) *Government Procurement: The scale and nature of contracting in the UK*

4. BUILDING ON THE GREEN FINANCE STRATEGY

The recently published Green Finance Strategy (GFS) set a clear and welcome ambition to grow private sector investment in low carbon and climate resilient infrastructure. However, the GFS should be seen as the beginning of a process and should be accompanied by more detailed interventions over time to ensure that private sector investment in green infrastructure grows at a sufficiently fast rate to allow the UK to meet its commitments under the future Environment Bill, Resources and Waste Strategy and its net zero target. Key next steps on green finance include:

Strengthening the framework for greening finance

1. The GFS took an important step forward by setting the expectation that all listed companies and large asset owners should disclose their climate-related risks and opportunities in line with the TCFD recommendations by 2022. However, to ensure a level playing field, provide meaningful and comparable information for investors and improve decision-making, **TCFD-aligned reporting should be made mandatory on a comply & explain basis by the early 2020s** for all companies currently reporting to the Streamlined Energy and Carbon Reporting regime. In parallel, the government should act on its commitment in the GFS to support quality disclosures by providing guidance and data and ensure this support is provided across multiple sectors.[30]

2. **The work with international partners to encourage market-led action to grow nature-based disclosures should be accelerated**. This will be an important complement to the natural environment improvement targets the government has committed to developing under the Environment Bill.

3. There should be **continued support for the British Standards Institute in developing sustainable financial standards** whilst ensuring complementarity with the standards being developed as part of the EU Sustainable Finance Action Plan and other international standards.

4. The GFS acknowledged the need for the introduction of a **Green Finance Education Charter** developed in partnership with professional bodies. This charter should be rolled out across the public and private sectors to ensure that organisations are well equipped to identify and understand the benefits of green investment opportunities.

[30] The Aldersgate Group will soon publish a detailed briefing on how government action can best support the take-up of TCFD-aligned reporting.

Establishing long-term policy frameworks for financing green and removing market barriers that stand in the way of greater investment

1. In order to ensure that measures to 'green' the financial system actually result in growing private investment in new green infrastructure, the GFS needs to be accompanied by a comprehensive set of regulatory drivers, fiscal incentives and market mechanisms that will **grow the pipeline of projects needed to put the UK on a path to achieving its net zero target and other key environmental policy objectives.** Some of the key policy measures needed are set out above in the sections on the CGS+, the Environment Bill and the RWS.

2. **Government needs to work closely with the GFI to identify key market barriers and gaps to investment in green infrastructure and technologies. It should also put in place targeted public funding and demand to catalyse private sector investment in complex technologies or types of projects.** The £5m Green Home Finance Fund is a good example of what needs to be done across key complex investment areas, albeit the scale of the fund is too limited when compared to the scale of decarbonising the building stock.

To access Aldersgate Group's full policy recommendations for increasing the levels of green investment to achieve the policy objectives above, please click below: