

Aldersgate Group response to ESNZ Committee inquiry into Business and Energy

September 2026

About Aldersgate Group

Aldersgate Group is a coalition of major businesses, academic institutions and civil society organisations, driving action for a competitive and environmentally sustainable economy.¹ Our corporate members represent all major sectors and believe that strong environmental policies and good regulation are key to unlocking growth and decarbonisation. Among many others, they include Anglian Water, Associated British Ports, Aviva, BT, Co-op, Michelin, Nestlé, Netflix, ScottishPower, Siemens, SUEZ, Tesco, VodafoneThree and Willmott Dixon.

Summary

Electrification is one of the most cost-effective routes to decarbonising UK industry and a precondition for a competitive, reindustrialised economy. The technology is largely ready; however, the economics and enabling system are not yet in place to scale industrial electrification. High electricity prices relative to gas, inadequate grid connections and poorly sequenced infrastructure are holding back investment as industrial assets face or approach reinvestment decisions. The government should:

- **Publish the updated Industrial Decarbonisation Strategy, with a focus on industrial investment.** The update should address the wider requirements of futureproofing industry alongside emissions reductions, including certainty on regulation (particularly the UK ETS and CBAM), planning and permitting, energy costs, supply chain security, workforce, demand for low-carbon products and climate resilience. It should have a strong focus on regional delivery and align fully with the Modern Industrial Strategy, so that decarbonisation and reindustrialisation are pursued as one objective.
- **Reallocate social and environmental levies from all electricity bills into general taxation,** with a roadmap to complete this by 2030.
- **Commit at Autumn Budget 2026 to a targeted electrification discount scheme,** consult quickly on its design and launch it in 2028.
- **Give SMEs a single, accessible route to advice, finance and funding,** and build on the success of the MadeSmarter initiative to drive SME investment in efficiency.

Response

1. What is the potential for industry to electrify by 2030 and 2050?

The potential for electrification is significant, and industry participants agree on this direction of travel with almost two-thirds of industrial leaders seeing electrification as the most effective lever for meeting net zero targets.¹ The Climate Change Committee (CCC) found that electrification could deliver 57% of the emissions reductions required from industry by 2040, yet only around 3% of industrial process heat is electrified today.² Electrification

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

technology across sectoral applications has made substantial progress in recent years. Globally, around three-quarters of final energy demand could now be electrified economically, up from around a quarter two decades ago, yet electricity still accounts for only around 21% of final energy consumption today.³ Make UK estimates that 80% of UK manufacturers, some 104,000 firms, could electrify.⁴

Electrification is also the most efficient route to zero-carbon heat. Electric boilers run at close to 100% efficiency, heat batteries at around 98% from electricity to steam, and industrial heat pumps at 200-500%, against 80–90% for gas boilers.⁵

There are two key barriers to what can be achieved by 2030.

First, the **operating costs**: the ratio of electricity to gas prices for businesses sits between 3.9 and 4.3. Removing policy costs would reduce this to between 3.1 and 3.5, but for many medium and large energy-intensive sites the differential is still too high to justify switching.⁶

Grid access is the second barrier, with many business citing the costs, long timelines for connection, and connection uncertainty as significant challenges for the initial business case and attracting investment. An Aldersgate Group and UKERC report found that, without further investment, 42% of large industrial sites could face distribution network constraints in 2030, rising to 77% by 2050. Dispersed sites outside the major clusters were found to be particularly at risk of constraint costs.⁷

Our members describe a consistent pattern that for many sites the business case for electrification does not stack up due to high electricity costs in the UK even once carbon pricing is considered. Connection costs and timescales compound the gap. Companies therefore direct innovation and capital to sites in other geographies. Pilots and first deployments are run overseas, and the learning and supply chains build up there. This creates the risk that UK sites are left progressively underinvested, missing the productivity and reliability gains that modernisation delivers alongside lower emissions. Over time this puts their long-term viability at risk and weighs against the UK when firms choose where to build new capacity.

System alignment will determine progress to 2050.

Major capital allocation decisions in sectors such as steel, cement, lime, chemicals, glass, ceramics and paper typically occur only every 25-50 years. Many core assets will reach these reinvestment points this decade due to past waves of industrial investment. However, hydrogen and CO₂ networks remain under development, electricity networks require substantial upgrades in many regions, and much of this enabling infrastructure is unlikely to be operational before the early to mid-2030s.^{8 9}

This creates a chicken-and-egg problem. Industrial firms want confidence that they can access enabling infrastructure at an economically rational price within their investment window; infrastructure developers want credible demand before investing capital; and government is reluctant to set further requirements before either is in place, wary of adding cost to sectors already under pressure. Each actor waiting for certainty is behaving rationally on its own terms, but collectively the system settles into a holding pattern, and the likely result is further deindustrialisation. Without mechanisms to share risk and upfront investment costs, decarbonisation, and the productivity gains that modernisation brings, both will be delayed, and manufacturing capacity will close or be built elsewhere.¹⁰

Innovation support remains essential for reaching the potential electrification has for 2030 and 2050. Electrifying complex, multi-process sites and coordinating across clusters raises integration challenges and opportunities that off-the-shelf equipment does not solve, from matching variable supply to continuous production to sharing waste heat between neighbouring plants. Heat batteries illustrate the opportunity, by storing energy as heat and decoupling electricity consumption from heat demand, they can deliver temperatures well above the current roughly 200°C limit of commercially available heat pumps, while potentially reducing peak grid-connection requirements. Sustained support for demonstration and first-of-a-kind deployment will determine how quickly innovative options become bankable.

2. Would electrification of industry contribute to economic growth?

Electrification is essential to the economic resilience of UK industry and to attracting the next generation of industrial investment.

High-carbon production has not attracted sustained substantial investment for decades in the UK. Manufacturing employment has fallen 47% since 1990, and much of the 63% fall in industrial emissions reflects lost output rather than cleaner production.¹¹ The UK has some of the highest industrial electricity prices in Europe, with medium industrial users paying around 50% more than their German counterparts and more than twice as much as those in France in the second half of 2025.¹² Moreover, over 40% of companies report cutting UK investment because of energy costs.¹³ Modernising and decarbonising manufacturing industry is the growth opportunity.

Manufacturing generates £220 billion in output, supports 2.6 million jobs paying 8% above the economy-wide average, and accounts for 42% of exports and 48% of business R&D.¹⁴ These jobs sit outside London and the South East in 2023, 28% of heavy industry GVA and over 400,000 jobs were in the North.¹⁵ The wider net zero economy adds around £105 billion in GVA and 1.1 million jobs across every region, around 48% more productive than the UK average.¹⁶

Industrial competitiveness rests on the combination of input costs, labour, energy, land and materials; where other economies outcompete the UK, mobile capital will flow elsewhere. However, the UK has many advantages including a skilled workforce, a strong innovation base, regions with deep industrial heritage, supply chains and an increasing domestic demand for low carbon products. Moreover, investors also highlight the UK's existing stable policy environment, strong institutions and clear climate policy frameworks as helpful for attracting international capital. The government should seek to build on these strengths through aligning modernisation, innovation and decarbonisation.

Electrification supports growth through:

- **Lower, more stable costs** - Electric heat is more efficient, and clean power insulates industry from gas price shocks; meeting the 2030 clean power target could cut electricity market volatility by 44%.¹⁷
- **Access to growing markets** - Global green trade could be worth £1.8 trillion by 2030, with a potential £60-170 billion UK share.¹⁸ As the UK and EU carbon border adjustment mechanisms take effect, low-carbon production becomes a condition of market access.¹⁹

- **Domestic supply chains** - Electrification creates demand for UK-made equipment and skilled installers, while growing electricity demand spreads fixed system costs and lowers unit costs for everyone.

3. What needs to be in the Industrial Decarbonisation Strategy?

The government should publish the updated Industrial Decarbonisation Strategy without further delay. The update should address the wider requirements of futureproofing industry alongside emissions reductions, including certainty on regulation (particularly the UK ETS and CBAM), planning and permitting, energy costs, supply chain security, workforce, demand for low-carbon products and climate resilience. It should have a strong focus on regional delivery and align fully with the Modern Industrial Strategy, so that decarbonisation and reindustrialisation are pursued as one objective.²⁰

To tackle the economic challenges and spatial and temporal uncertainty set out above, the Strategy should establish:

- **A joint DBIST-DESNZ industrial decarbonisation and growth plan**, clearly aligning UK industry and manufacturing with the Modern Industrial Strategy. It should signal the expected sequencing of hydrogen, carbon capture and electricity network investment relative to industrial need. Support frameworks should seek to reflect industrial timing realities and set out credible pathways for dispersed sites, which account for more than half of industrial emissions, alongside clusters.²¹
- **A strong duty on NESO to plan for industrial infrastructure needs** across the Strategic Spatial Energy Plan and Regional Energy Strategic Plans, linked clearly to devolution and regional growth plans and supported by a network of regional industrial coordinators.
- **Regional delivery backed by real powers.** Regions compete for investment on workforce quality. Government should align vocational training funding so combined authorities can commission provision matching their regional industrial strategies, give regions more influence over innovation funding currently held centrally and fund any new devolved responsibilities properly.
- **A clear role for the National Wealth Fund in commercial viability.** Following a mandate from the Industrial Decarbonisation Strategy, the NWF should take a more strategic and geographically aware role, supporting keystone projects and blended finance that make shared infrastructure and aggregated projects viable. For example, co-locating synthetic sustainable aviation fuel production within industrial clusters could strengthen the business case for carbon capture and hydrogen for other industrial facilities.

A targeted electrification discount scheme should be a core commitment of the Strategy's electrification focus. The CCC's June 2026 progress report is clear that existing cost exemptions will not deliver electrification alone.²² Targeted discounts should support businesses that electrify heat, focusing on larger firms able to finance capital costs but whose operating costs stop projects meeting investment thresholds. Energy UK proposes discounts delivering a 10% return on capital over ten years.²³ The scheme could use an application or auction process, initially prioritising sites with smaller spark gaps to

maximise demand electrified per pound of public support and reflect regional and sectoral differences.

The impact could be considerable. Energy UK and CBI modelling suggests combining policy cost removal with a supported heat pump could cut a medium-sized site's annual energy bill by around £188,000, or 13%, in 2029/30²⁴ and Make UK found a targeted discount could cut heat costs by up to 80% for some sites.²⁵ The government should commit to the scheme at Autumn Budget 2026, consult quickly on its design and launch it in 2028.²⁶

The Strategy should also set out the **wider enablers** of industrial decarbonisation:

- **Lowering electricity prices for all businesses**, by reallocating levies into general taxation by 2030.²⁷
- **Improving access to the grid**, with a clear, objective framework for prioritising strategic demand connections to the distribution network.
- **Establishing demand-side measures**, including moving low-carbon public procurement from guidance to mandatory requirements so that first movers are not penalised.^{28 29}

4. What should the Government be doing to incentivise SMEs to decarbonise?

SMEs account for around 37% of UK greenhouse gas emissions, but these emissions are highly concentrated. Just 14% of UK SMEs operate in carbon-intensive sectors and they account for around 84% of total SME emissions. Targeting support at these businesses could therefore have a disproportionate impact on SME decarbonisation.³⁰ However, many SMEs lack the time, expertise and capital of larger firms for implementing decarbonisation action. Incentives must be simple and combine funding with practical support. The government should:

- **Create a single front door for SME decarbonisation.** Energy UK's proposed Business Energy Upgrade scheme would give SMEs technical advice and access to grants or low-cost finance, using joint procurement to lower costs and attract private finance across a portfolio of investments.³¹ This would address the fragmentation of current support.
- **Scale up proven models such as Made Smarter**, which combines funding with skills support and has seen 97% of adopting firms report benefits from improved efficiency to cost reductions.³² The approach should be extended explicitly to energy efficiency and electrification, with stronger peer networks.
- **Use the tax system.** Review how capital allowances and business rates relief treat energy efficiency, on-site generation and electrified equipment, to give SMEs a clear, stable incentive to invest.
- **Simplify public funding.** The grant landscape is hard to navigate, with complex criteria and short bidding windows. Funds should be better coordinated, with more flexible timelines.³³
- **Strengthen demand.** Green public procurement and clearer product standards give SMEs developing low-carbon products the confidence to invest and scale.³⁴

5. Is the biggest barrier to SMEs the high cost of electricity?

High electricity prices are a major barrier, but not the only one. Around 60% of SMEs cite rising business costs as a major constraint on becoming more sustainable, and high electricity prices lengthen payback periods.³⁵ But SMEs face barriers that cheaper power alone would not solve:

- **Capacity and awareness.** Many SMEs have limited awareness of the solutions, schemes and finance available, and lack the expertise to turn ideas into investable projects.³⁶ Around 31% report difficulty even measuring their carbon footprint.³⁷
- **Skills.** UK employer investment in training has fallen 28% in real terms since 2005,³⁸ and SMEs are least able to invest.³⁹ Further education and training provision is often not aligned to regional industrial priorities and greater devolved public skills intervention may be able to better target SMEs.
- **Upfront costs and access to finance.** Energy efficiency and electrification measures often carry high capital costs, and smaller firms face less favourable borrowing terms.

A package tackling electricity prices alongside advice, skills, finance and downstream demand for low-carbon products will be effective at tackling these challenges. The Industrial Decarbonisation Strategy refresh should include a focus on enabling policy for SMEs.⁴⁰

6. How should the Government be engaging banks and financial services to drive the decarbonisation of the UK's SMEs?

Risk is the critical factor limiting bank lending for decarbonisation. Commercial banks prefer lower-risk borrowers, and uncertainty over technology, business models and policy, together with gaps in decision-useful data, raises the perceived risk of green industrial investment. Government should:

- **Provide long-term policy certainty.** Clear pathways, infrastructure timelines and stable electricity pricing underpin bankable projects.
- **Use public financial institutions to de-risk lending.** Guarantees and co-investment can lower the cost of capital and crowd in commercial lenders. Mandates and synergies between the National Wealth Fund, British Business Bank and UK Export Finance should be clarified, so support is catalytic and does not crowd out private investment.⁴¹
- **Explore concessional lending.** The Bank of England could build on its Term Funding Scheme, drawing on examples of green lending facilities in Japan and China, to offer lower-cost funding to banks lending for low-carbon investment.
- **Support aggregation.** Many SME decarbonisation projects are too small to attract finance efficiently on a standalone basis. Aggregating projects into larger portfolios, as proposed under CBI and Energy UK's Business Energy Upgrade scheme, could reduce transaction costs and help attract private investment.⁴²
- **Improve transparency.** Proportionate transition planning and reporting would help lenders identify credible climate action.

- ¹Siemens (2025), [Infrastructure Transition Monitor](#).
- ²Climate Change Committee (2025), [The Seventh Carbon Budget](#).
- ³Ember (2026), [The Age of Power](#).
- ⁴Make UK / Electrify Industry (2026), [Essential Electrification: Proposals for Industry](#).
- ⁵Make UK / Electrify Industry (2026), [Essential Electrification: Proposals for Industry](#).
- ⁶CBI and Energy UK (2026), [Cutting business energy costs: a blueprint to boost growth](#).
- ⁷Aldersgate Group and UKERC (2025), [Electrifying industry and distribution networks](#).
- ⁸Engagement with Peter Talyor and Peace Adesina in September 2026.
- ⁹Aldersgate Group and UKERC (2025), [Electrifying industry and distribution networks](#).
- ¹⁰Engagement with Peter Talyor and Peace Adesina in September 2026.
- ¹¹Aldersgate Group (2025), [Next steps for UK industrial decarbonisation policy in 2025](#).
- ¹²Department for Energy Security and Net Zero, [Quarterly Energy Prices, Table 5.4.2: Non-domestic electricity prices in the EU for medium consumers, updated May 2026, using Eurostat data](#).
- ¹³CBI and Energy UK (2026), [Cutting business energy costs: a blueprint to boost growth](#).
- ¹⁴Make UK (2025), [UK Manufacturing: The Facts 2025](#).
- ¹⁵Aldersgate Group (2025), [Next steps for UK industrial decarbonisation policy in 2025](#).
- ¹⁶Energy and Climate Intelligence Unit and CBI Economics (2026), [The race for net zero](#).
- ¹⁷Navia Simon, D. and Diaz Anadon, L. (2025), [Power price stability and the insurance value of renewable technologies](#).
- ¹⁸Aldersgate Group (2025), [Next steps for UK industrial decarbonisation policy in 2025](#).
- ¹⁹Aldersgate Group (2026), [Low carbon public procurement for UK competitiveness](#).
- ²⁰Aldersgate Group (2026), [Green Policy Review 2026](#).
- ²¹Aldersgate Group (2025), [Next steps for UK industrial decarbonisation policy in 2025](#).
- ²²Climate Change Committee (2026), [June 2026 progress report to Parliament](#).
- ²³Energy UK (2026), [Industrial Strategy: Where next?](#)
- ²⁴CBI and Energy UK (2026), [Cutting business energy costs: a blueprint to boost growth](#).
- ²⁵Make UK / Electrify Industry (2026), [Essential Electrification: Proposals for Industry](#).
- ²⁶Aldersgate Group (2026), Representation to Autumn Budget 2026.
- ²⁷Aldersgate Group (2026), Representation to Autumn Budget 2026.
- ²⁸Aldersgate Group (2026), [Low carbon public procurement for UK competitiveness](#).
- ²⁹Aldersgate Group (2026), [Green Policy Review 2026](#).
- ³⁰British Business Bank (2025). [SEMs and Net Zero report 2025](#).
- ³¹Energy UK (2026), [Industrial Strategy: Where next?](#)
- ³²University of Cambridge Institute for Manufacturing (2023), [Made Smarter Adoption Research Project](#).
- ³³Aldersgate Group (2025), [Next steps for UK industrial decarbonisation policy in 2025](#).
- ³⁴Aldersgate Group (2026), [Low carbon public procurement for UK competitiveness](#).
- ³⁵NatWest (2024), [NatWest SME PMI Tracker, January 2024](#).
- ³⁶Aldersgate Group (2025), [Workforce planning for clean heat](#).
- ³⁷NatWest (2024), [NatWest SME PMI Tracker, January 2024](#).
- ³⁸Learning and Work Institute (2022), [Raising the bar: employer investment in skills](#).
- ³⁹Aldersgate Group (2025), [Workforce planning for clean heat](#).
- ⁴⁰Aldersgate Group (2025), [Next steps for UK industrial decarbonisation policy in 2025](#).
- ⁴¹Aldersgate Group (2025), [Maximising the impact of the National Wealth Fund](#).
- ⁴²CBI and Energy UK (2026), [Cutting business energy costs: a blueprint to boost growth](#).