

Summary

Our Green Paper response has been shaped in conversation with our partners, and sets out our shared interests and concerns about the importance of industrial transformation as central to climate action and just transition.

We recognise that the Green Paper represents work in progress, and we are pleased to have an opportunity to provide input to that work. It is encouraging that the government is taking a mission-led approach and recognising that strategy is needed. At present, however, the emerging strategy's approach to climate is mostly about clean energy, which is too narrow a frame. The reality – especially if carbon reductions are not achieved as rapidly as hoped – is that the impacts of climate change both within the UK and on global markets will pose increasing risks to the economy over the coming years. It is therefore vital that the Industrial Strategy fully embraces its role in enabling people, places and businesses to thrive in the changing climate.

The Yorkshire & Humber region is instrumental to UK industry and sees a vital role for itself, particularly in the context of transforming from its very high-carbon heritage to a low-carbon future. The YHCC publication [Our Carbon Story](#) shows that our region needs to decarbonise four times faster than the business-as-usual rate to meet its carbon budget, and that our region's industrial sector needs especially to transform from its current position as a major global emitter. This is a major economic opportunity, which we know businesses across the region are keen to harness.

Yorkshire & Humber also has great collaborative strengths across sectors and disciplines. YHCC itself is an example of this, being founded on a shared appetite for climate action across public, business, academic and voluntary sectors, as articulated in our Climate Action Plan. This consultation responses has been informed by conversations with several of our partners including Yorkshire Universities, Northern Gas Networks, the TUC, West & North Yorkshire Chamber of Commerce, two Colleges of Higher Education, and others.

However, a key message emerging from these conversations is that crucial aspects of our region's industrial story are conspicuously absent from the Green Paper. Achieving a low-carbon industrial future must be done fairly and justly if it is to succeed. There are severe and persistent inequalities across Yorkshire & Humber in people's health and life opportunities, which poses major social and economic challenges. Decarbonising our industrial sector poses additional risks to people currently employed in our high-emitting sectors, their supply chains, and the foundational economies of the places – particularly around the Humber – where these industries are located. And the Humber

is worryingly absent from the Green Paper, despite the Humber Industrial Cluster having a well-developed Decarbonisation Plan, and despite the fact that the future of the steel industry in Scunthorpe currently hangs in the balance. Furthermore, there will inevitably be businesses across all sectors that cannot fully adapt to the low-carbon economy or to other climate effects such as land-use change. In particular this may impact the food and farming sector which, although small in terms of the UK's GDP, is vital to our resilience, environmental stewardship and to the economies of many rural communities.

A successful industrial strategy is only partly about backing winners such as renewable energy technologies; it must also include clear plans to support communities in the places that are instrumental to decarbonisation and climate resilience. In particular this means:

- Activating the power of businesses and organisations, particularly by creating a pro-active regulatory environment that gives confidence to businesses across all sectors – not just the high-growth sectors – to invest in training, skills, R&D and decarbonisation;
- Enabling fair and inclusive climate action, which cannot rely on trickle-down effects from high-growth sectors but must target places where inequalities are profound and economic transformation challenges are greatest, and invest in their foundational economies and educational institutions;
- Transforming our energy system, not just through technology but also by enabling demand reduction and energy efficiency to improve the resilience of all businesses to energy costs, and by fully engaging communities in the planning of new energy infrastructure.

Answers to selected consultation questions as submitted online

Growth-driving sectors

4. What are the most important subsectors and technologies that the UK government should focus on and why?

The most relevant growth-driving sectors in the Green Paper, from a climate action for us are advanced manufacturing, clean energy and life sciences. However:

- The Humber is not an identified cluster, which is a worrying oversight given that the Humber Industrial Cluster Decarbonisation Plan has been in play since 2020;

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- The consultation does not ask whether the correct growth-driving sectors have been identified.

We recognise that the Green Paper represents work in progress, and we are pleased to have an opportunity to provide input to that work. It is encouraging that the government is taking a mission-led approach and recognising that strategy is needed. At present, however, the emerging strategy's approach to climate is mostly about clean energy, which is too narrow a frame. The reality – especially if carbon reductions are not achieved as rapidly as hoped – is that the impacts of climate change both within the UK and on global markets will pose increasing risks to the economy over the coming years. It is therefore vital that the Industrial Strategy fully embraces its role in enabling people, places and businesses to thrive in the changing climate.

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But crucial aspects of our region's industrial story are conspicuously absent from the Green Paper. Achieving a low-carbon industrial future must be done fairly and justly if it is to succeed. There are severe and persistent inequalities across Yorkshire & Humber in people's health and life opportunities, which poses major social and economic challenges. Decarbonising our industrial sector poses additional risks to people currently employed in our high-emitting sectors, their supply chains, and the foundational economies of the places – particularly around the Humber – where these industries are located. And the Humber is worryingly absent from the Green Paper, despite the Humber Industrial Cluster having a well-developed Decarbonisation Plan, and despite the fact that the future of the steel industry in Scunthorpe currently hangs in the balance.

Furthermore, there will inevitably be businesses across all sectors that cannot fully adapt to the low-carbon economy or to other climate effects such as land-use change. In particular this may impact the food and farming sector which, although small in terms of the UK's GDP, is vital to our resilience, environmental stewardship and to the economies of many rural communities.

Therefore, in the changing climate and with the profound challenge of meeting carbon budgets, it is important to identify not just those sectors where growth is already strong, but also where significant growth is needed in order to achieve transformational change. These should include foundational economy activities such as building retrofit, zero-carbon construction, nature recovery, food and farming, education and training, and preventative healthcare.

Creating a pro-business environment

7. What are the most significant barriers to investment? Do they vary across the growth-driving sectors? What evidence can you share to illustrate this?

We must caveat this answer by making clear that a ‘pro-business environment’ is needed across all sectors and places, not just those sectors and clusters that the Green Paper identifies as being growth-driving.

Overwhelmingly we hear from our partners that policy & regulatory instability has been inhibiting business confidence, and is therefore among the biggest barriers. Clear policy direction and a pro-active regulatory environment should give confidence to businesses across all sectors to invest in training, skills, R&D and decarbonisation.

Enabling fair and inclusive transformation to a low-carbon, climate-adaptive cannot rely on trickle-down effects from high-growth sectors. It must target places where inequalities are profound and economic transformation challenges are greatest, and invest in their foundational economies and educational institutions.

A business that is struggling with its energy overheads will struggle to invest and grow. Transforming our energy system is not just about technology but also enabling demand reduction and energy efficiency to improve the resilience of all businesses to energy costs, and by fully engaging communities in the planning of new energy infrastructure.

It is also important that SMEs can more easily access smaller and more flexible finance to enable them to innovate and adapt.

Resource cuts and financial instability in the public and university sectors are further problems, weakening their ability to act as effective anchor institutions and procurers within local economies.

Better-adapted places have the resilience to attract long-term investment in the changing climate: for example, the [Lower Don Flood Alleviation Scheme](#) in Sheffield has reduced the flood risk for many existing businesses but also for adjacent brownfield land and thereby unlocked it for regeneration.

The profound spatial inequalities in Yorkshire & Humber, and elsewhere, are themselves barriers, because the places that most need investment often don't attract it. Initiatives such as the [Community Wealth Fund](#) are crucial here.

People and Skills

8. Where you identified barriers in response to Question 7 which relate to people and skills (including issues such as delivery of employment support, careers, and skills provision), what UK government policy solutions could best address these?

The people whose lives and livelihoods will be impacted by climate change and decarbonisation are central to Yorkshire & Humber's industrial story, but are not well-recognised in the Green Paper. Achieving a low-carbon industrial future must be done fairly and justly if it is to succeed. There are severe and persistent inequalities across Yorkshire & Humber in people's health and life opportunities, which poses major social and economic challenges. Decarbonising our industrial sector poses additional risks to people currently employed in our high-emitting sectors, their supply chains, and the foundational economies of the places – particularly around the Humber – where these industries are located. And the Humber is worryingly absent from the Green Paper, despite the Humber Industrial Cluster having a well-developed Decarbonisation Plan, and despite the fact that the future of the steel industry in Scunthorpe currently hangs in the balance.

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Through YHCC's Skills Flagship Project, the following messages are emerging:

- There is a huge opportunity to create fulfilling, future-focused jobs, and many skills-related initiatives across the region and nationally, but many sectors are facing skills bottlenecks in tackling climate change and nature recovery. A joined-up approach is needed, connecting all parts of the skills system, from education and universities to employers and apprenticeships.
- Skills are needed across most jobs – not just in retrofit and industry decarbonisation but also in professions, accounting, finance, community engagement and education. Certain sectors, such as agriculture, where 40% of farm-holders are over 60 years old, may need additional support to reskill.
- More focus is needed on how we retrain those in high-carbon jobs into low-carbon jobs. The risk is high: if we don't get this right, it could leave lasting impacts on communities.

- Further Education Colleges have an important role in training and retraining many of the key skills, but they are struggling with long-term funding challenges and tutor shortages.

Energy and Infrastructure

14. Where you identified barriers in response to Question 7 which relate to planning, infrastructure, and transport, what UK government policy solutions could best address these in addition to existing reforms? How can this best support regional growth?

These issues fall within the key barrier that we identified of policy and regulatory instability. The planning system has been in a state of flux for many years already, and successive reforms have generally tended to reduce the ability of the planning system to capture the financial value arising from development to provide the environmental and social public goods that could otherwise contribute to improving health, inequalities and thriving places. New and improved provisions for land value capture would therefore be very welcome.

To support place-based regeneration and investment, growth needs to be spatially targeted to those places where employment opportunities are needed that are relevant to the workforce. Where possible, those jobs should also be located to support placemaking in terms of the vitality of centres and connectivity by public and active travel modes. Hence the economic strategies of places need to be aligned to the transformation ambitions of those places. It is currently unclear from the Green Paper as to how the UK Industrial Strategy will support and enable Local Growth Plans, and how they will align with spatial planning objectives.

Some stakeholders have expressed the view that public opposition to renewable energy development and new grid infrastructure may prove to be a barrier. Solving this problem depends on much-improved citizen engagement. Large energy schemes can be controversial and generate vocal opposition which can lead to backlash and reduced delivery of schemes, but this can mask wider, less vocal public support for low-carbon developments. There is a risk that increased use of the Nationally Significant Infrastructure Projects (NSIP) regime, as proposed in the recent planning reforms consultation, may be interpreted as an attempt to sideline opposition by reducing local political accountability. To mitigate this risk, it is important that public engagement and scrutiny arrangements within the Development Consent Order process for NSIP schemes are comprehensive and transparent.

YHCC has previously recommended that Local Plans should take a tiered approach to identifying suitable areas for renewable energy developments, on the basis that some

locations would be suitable for small-scale renewable schemes but not for large-scale ones. This should enable more small-scale schemes to come forward, including community-led schemes, in locations where large schemes would tend to be refused.

15. How can investment into infrastructure support the Industrial Strategy? What can the UK government do to better support this and facilitate co-investment? How does this differ across infrastructure classes?

The most important step is to align national investment through the Industrial Strategy with the various infrastructure priorities that have already been developed or are in progress, so as to support and enable them. The key source material for this includes (non-exhaustively):

- Local Area Energy Plans and the new Regional Energy Strategic Plans;
- Transport for the North's Strategic Transport Plan;
- Local Skills Improvement Plans;
- Local Nature Recovery Strategies.

Regulation

20. Do you have suggestions on where regulation can be reformed or introduced to encourage growth and innovation, including addressing any barriers you identified in Question 7?

Pro-active regulation is crucial for investment, and we warmly welcome the recognition of this in the Green Paper.

Yorkshire & Humber needs to decarbonise four times faster than under a business-as-usual scenario, and the scale of the challenge is similar across the UK. Meeting carbon budgets is essential to fulfilling the government's Clean Energy Mission, and regulatory frameworks must support this. In our recent response to the proposed changes to the National Planning Policy Framework (NPPF) we observed that achieving radical reductions in greenhouse gas emissions can only be properly fulfilled when:

- National policy explicitly commits the planning system to delivering Carbon Budgets;
- Local Plan production includes a whole-plan carbon assessment, showing how the emissions arising from new development can be reconciled with the authority's relevant Carbon Budget for the plan period;
- Planning applications for new development provide at least the operational and embodied carbon performance required to be consistent with that Local Plan.

Equivalent requirements must apply equally to local decisions and to decisions made under the NSIP regime, so reviewed National Policy Statements also need to align with these principles. It is important to stress that these development expectations are not just about housebuilding but about commercial and infrastructure development too.

Getting the regulatory ‘ratchet’ right, so that businesses with high energy consumption and/or high greenhouse gas emissions have a stable trajectory on which to plan for and implement changes, is essential to a just and fair transition. For many businesses this will enable a strategic choice to invest for the long-term in decarbonisation of processes and supply chains, and retraining of the workforce. Other businesses may need to make planned reductions in output and workforce, and the more predictable these reductions are the less they risk causing harm to local economies, and to people’s lives and livelihoods.

Place

27. What public and private sector interventions are needed to make strategic industrial sites ‘investment-ready’? How should we determine which sites across the UK are most critical for unlocking this investment?

Investment-ready strategic sites require locations that offer both the physical attributes (topography, flood resilience, access to energy and resources) and the human capital (a relevant workforce and a strong foundational economy) so that it’s a viable and attractive place to invest. Further, investment needs to be targeted towards places whose economies are particularly vulnerable to job losses arising from macro-economic changes including climate-related changes. The Grantham Institute’s work on [Investing in a Just Transition](#) is relevant here.

28. How should the Industrial Strategy accelerate growth in city regions and clusters of growth sectors across the UK through Local Growth Plans and other policy mechanisms?

The Combined Authorities in Yorkshire & Humber all have a suite of strategies such that economic ambitions aim to integrate with social and environmental ones, though each one has a different approach. The West Yorkshire Plan has clear asks of national government to enable better cross-strategic integration, which we would commend.

Therefore, strategic plans for different places will necessarily be different, but should be complementary to each other. YHCC’s [Climate Talking Points](#) briefing identifies four key policy changes needed to unlock climate action, and these are all relevant to what is needed by way of a mission-driven approach to supporting Local Growth Plans:

- Set out a clear pathway for reducing emissions and restoring nature and empower places to use local targets and go further and faster than national government if they wish.
- Create locally managed funding pots to allow key sectors to get on with acting, rather than wasting time competing and bidding for multiple, disjointed funding sources.
- Join up climate, skills and economy strategies to ensure they address the big challenges (poverty, ageing population, skills shortages and climate risks) together.
- Commit to a nature-first approach to infrastructure projects so that they can cope with future climate scenarios and nature is woven into all climate action.

Partnerships and Institutions

32. How can the UK government improve the interface between the Industrial Strategy Council and government, business, local leaders and trade unions?

[Just Transition Taskforces](#), as are progressing in Scotland and Wales, are a useful initiative that can be enabled in England through devolution as they should operate well at the scale of combined authorities.

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YHCC is one of several Climate Commissions across the UK which provide an interface for policy and collaboration across all sectors. Most of the funding for Climate Commissions has come from universities and research grants plus some partner contributions, but such cross-sector collaborations could be achieved much more consistently if government were to provide a resource.

34. What are the key risks and assumptions we should embed in the logical model underpinning the Theory of Change?

The climate-related risks are profound. The key references here are the UK Climate Change Committee's Assessment of the [Third Adaptation Programme](#); and the [Climate Change Risk Assessment](#) – the proposed methodology for the Fourth Assessment

includes modelling for the socio-economic impacts of both a 'central' scenario that corresponds with core official projections, as well as a higher exposure scenario.

However, the CCC recognises that these scenarios are limited by assumptions built into the baseline evidence. This cannot adequately account for the impact of important variables such as different levels of support for decarbonisation amongst leaders, businesses and communities in different places. Indeed, the socio-economic circumstances of places across the UK will be significantly shaped by climate change whether or not the government's economic ambitions are realised. With this in mind, we suggest that a key risk scenario is the extent to which local economic strategies can succeed, especially in the changing climate, in the event of different macro-economic outcomes.