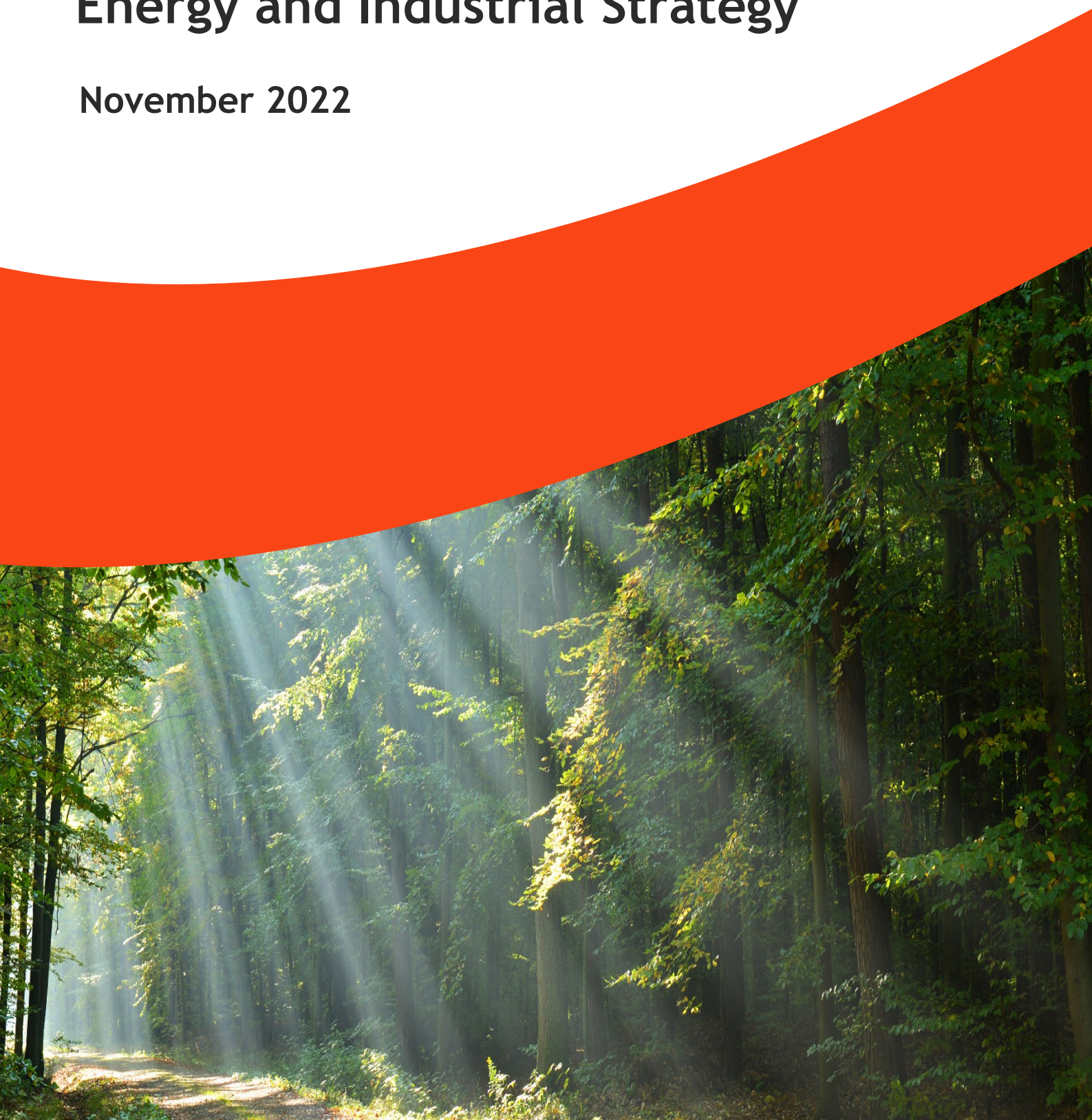




Net Zero Reponse

Department for Business,
Energy and Industrial Strategy

November 2022



1. How does net zero enable us to meet our economic growth target of 2.5% a year?

Net Zero refers to the concept of minimising our negative contributions to environmental health and climate change.

As recognised by the scientific communities worldwide, and supported by detailed scientific data analysed, CO₂e emissions are one of the key contributing factors in terms of: climate change, global overheating while it also impacts air quality / human and species health and as a knock-on effect it can lead to huge biodiversity losses. In the worst-case scenario, biodiversity collapses. Economic growth cannot be taken out of context. Economic growth derives from sustainable operations and the ability to extract value from available resource to develop products and services.

Energy security, a vital component of net zero, is also vital to economic growth.

The target of 2.5% of economic growth a year will be compromised if net zero, sustainability and ESG are not at the core of policy development and government investment as these reassure long term benefits.

In effect meeting the net zero target results in:

- Economic growth due to best use of resources and optimum energy use management.
- Avoidance of reputational damage. Whilst the world develops in terms of environmental concern, with the most economically developed nations declaring roadmaps to meeting their targets (hand in hand with energy security), it would be extremely embarrassing for the economically advanced UK Ltd to avoid this responsibility.
- Net zero drivers lead to innovation. This takes many shapes and forms from new energy systems, controls, materials and technologies to advanced transparency, exportable knowledge and other.

In effect, there should be no question that any economic growth cannot even be considered outside of the context of net zero, sustainability and ESG.

2. What challenges and obstacles have you identified to decarbonisation?

Key challenges that we have identified on our projects, which mainly concerns buildings, include:

New Buildings:

- Policy direction and minimum requirements may not go far enough to minimise emissions from new developments in line with targets
- Compliance tools like SAP are often used as a design tool
- Not enough controls in place, not meeting decarbonisation targets as a developer, or not confirming if the targets set have been met in real life can turn decarbonisation into a check box exercise.

- Out of date planning terms and planning conditions in general

Existing Buildings:

- Not enough government support in terms of funding, no structured publishing or funding opportunities. When funding opens, local authorities must prepare programmes that will last for years within weeks. This led to shocks within the industry and no thorough review of technical information.
- We would welcome a continuously open funding platform for existing buildings and decarbonisation funding, which would evaluate outcomes of previous efforts, record submissions and monitor quality delivery.
- Not enough skills and knowledge and a lack of ambition in terms of how rapid existing buildings will have to decarbonise.
- Planning can conflict with the intention to decarbonise existing assets especially when these are considered traditional.
- There is no clear narration from the central government about the importance of and current support offered for decarbonising existing building stock.
- Conflicts with the application of PAS 20235/2038 standards, their intent and government guidance / funding criteria.

Technologies and materials:

- Construction products and materials in support of decarbonising buildings are currently available. Nevertheless, for the supply chains to use economies of scale and undertake R&D there needs to be strong commitment as to the rate of the decarbonisation from government.
- Skills and knowledge, training to install new and existing systems is lacking. The construction sector still requires upskilling to understand the objective and how to deliver solutions.

Finance

- More green finance as well as financing green. Decarbonisation needs to be aligned with commercial financial products and be led by the guise of ESG principles
- Transparency in terms of projects funded and additional quality controls in place
- Financing green and green financing need to be accessible by all sectors, with commercially advantageous offers
- Lack of clarity on the necessary direction change
- Net zero is always discussed in terms of affordability i.e., 'can we afford to do it' and political motives i.e., 'will the government undermine it?'. These two concerns create insecurities in the markets and between stakeholders
- The current consultation starts with a statement around net zero and economic growth, which creates the impression that somehow, we need to modify the direction.
- This may not be necessarily true. There are benefits in meeting the target both in terms of global health and wellbeing, as well as advancing the UK that are not commonly captured when discussing net zero.

3. What opportunities are there for new /amended measures to stimulate or facilitate the transition to net zero in a way that is pro-growth and/or pro-business?

- Strong commitment to the target: all new policies should be evaluated against it. This provides the opportunity to reassure the sector and accelerate the transition whilst optimising everyday processes.
- Pro-growth and pro-business objectives require policy and political stability. In fact, if the net zero target policy was declared even earlier, businesses and individuals would have already reaped the benefits due to the current rise in energy price and import dependency.
- New commitments need to reinstate the target and accelerate the transition. UK plc can export knowledge and become a thought leader in the field. We have seen other large world economies (e.g. China) progressing to the development of large renewable energy farms, new energy storage technologies and systems etc. There is a risk that the UK is left behind competition, so it is extremely important that the target is achieved.
- Additional funding opportunities, knowledge transfer networks, research & development, and a stricter stance on fossil fuels usage will all support businesses in feeling confident to invest in and pursue future decarbonisation projects.
- There needs to be also an opportunity to 'not do thing right' the first time, in effect a way to explore possibilities and test new ideas at a small scale (exemplar testing). These early checks can unlock commercial opportunities that will be evidenced based.

4. What more could government do to support businesses, consumers and other groups to decarbonise?

- The target needs to remain in place. More supportive policy tools need to be introduced especially around planning, innovation, new technologies and funding
- The target needs to be technology agnostic and allow the industry to innovate.
- Additional incentives in terms of benefits when decarbonising needs to be provided.
- Net zero needs to be linked with overall important policies in terms of biodiversity, regenerative economy, circular economy, health and wellbeing and enable stakeholders and consumers to take credit for striving for the right thing.
- There needs to be clear narration and marketing, in layman terms, of why we are striving for these targets along with support in providing training and educational opportunities.
- Conscious use of fossil fuels.
- Transparency about reaching net zero targets.
- Ensure consistency in policy, despite changes to the governments net zero legislation.
- Provide tax relief on decarbonisation projects. Focus also on refurbishment and retrofit projects.

5. Where and in what areas of policy focus could net zero be achieved in a more economically efficient manner?

Policy should focus on:

- Clear articulation of the target as well as offering support in understanding the objective.
- Retaining an open dialogue within the industry and allocate the right level of resources to understand barriers and risks. This understanding means tools and services can be provided in support of overcoming issues.
- Retrofit is key and funding should always be available. Individual projects will need to confirm performance upon completion and during operation.
- Invest in R&D and academic institutes. Recent announcements in terms of shale gas and further gas extraction give industry the wrong signal as they will absorb high capital investment and years to complete but they go against the key policy direction, so industry loses trust to policy.
- The incorporation of local supply chains, additional support for providing skills and talent will lead to maximum return of investment
- Avoid dismantled and disjointed policy moves. Net zero and sustainability needs to be elevated to all policy strategy level, so everyone can coordinate.

6. How should we balance our priorities to maintaining energy security with our commitments to delivering net zero by 2050?

Energy security can only be obtained with energy resource diversification, the careful consideration of the risk/resilience of the different energy sectors, minimisation of energy demand (no energy wastage) and maximisation of in-house energy generation and store from renewable and low carbon technologies.

Decarbonisation, net zero and overall sustainability goals go hand in hand with energy security, as these targets ensure the minimisation of wastage and best use of engineering practices.

This is very clear if one was to consider the impact of all existing buildings within the country if they were to meet a net zero target and reduce their energy demand.

The priorities should be:

- Minimise energy demand by avoiding energy wastage (energy inefficient buildings waste energy use)
- Maximise diversity of energy resourcing and local/ national energy produce from renewables and low carbon technologies
- Allow for new solutions to interface with the national grid to reduce supply/demand decentralised networks with varying energy store capabilities
- Invest in the development of new technologies and enhancement of existing technologies, with knowledge export potential
- Minimise use of offsets – unless unavoidable.

7. What export opportunities does the transition to net zero present for the UK economy or UK businesses?

Net zero targets to maintain an environment where both people can thrive whilst negative climate changes to finite resources are simultaneously reduced to levels that allow for adaptation. Geopolitical conditions also create links between energy provisions and exports which impact national sovereignty.

Being a frontrunner, advocating for global wellbeing, supporting through meeting net zero and climate targets and better environment for all (ESG and Net Zero) and increased trust in the UK plc exportable services.

Having developed skills / knowledge, new technologies as well as being considered one of the most technically advanced nations on sustainable innovation means all transitions have a high exportable value. By leading national and international markets on the path to net zero, this encourages other businesses to perceive the UK as a natural market option to invest in.

New finance products, green financing, alignment with the EU principles of 'Do No Significant Harm' and provision of support for the concept of circular / regenerative economies (natural progress beyond Net Zero) allows for additional opportunities to be unlocked. Finally, the ability to generate excess energy, connect to a dynamic energy distribution and management system, offer additional energy storage opportunities etc can provide UK plc with additional high value exportable products.

8. What growth benefits/opportunities have you had, or do you envisage having, from the net zero transition?

Specific to McBains:

- Leading by example, reputational benefits.
- Support the retrofit agenda.
- Upskill teams and provide new and better construction services.
- Maintaining a highly trained in-house net zero and ESG team - strategy.
- Collaborate with a variety of stakeholders to solve difficult problems, enabling development of new commercial propositions.
- Net zero will unlock new thinking and will allow teams to concentrate on the beyond net zero step.

9. What barriers do you face in decarbonising your business and its operations?

Main barriers:

- Political / policy instability and lack of clear direction affects supply chains.

- We believe that the current concept of decarbonisation does not go far enough, so a challenge exists for us as to how we move to a state that we deliver decarbonisation of our operations in full.

10. Looking at the international market in your sector, what green opportunities seem to be nascent or growing?

The overall net zero agenda is growing. We can see opportunities within:

- Energy security, new technologies and supply demand systems.
- Material choices, environmental product declarations and embodied carbon.
- Lifecycle and whole life cost benefit, carbon and impact assessments.
- Energy stores (not only batteries) and using buildings as 'power stations'.
- Ability to export knowledge and practice to other countries that are not as advanced especially around retrofit and energy demand reduction.
- Process and building operation optimisation, IoT.
- Regenerative, circular and considerate - new principles in buildings development.
- MMC, design for disassembly and the concept of material banks.
- Research opportunities around concepts such as synthetic fuels, hydrogen, and new energy networks.

11. What challenges has the net zero transition presented to your business?

We are strong advocates of green growth, social equity and value, net zero, ESG and best engineering practice.

Challenges that we have faced relate mostly with sudden change of policy direction, out of date planning policies, clients being sometimes not as well informed in terms of the different funding opportunities or requirements and supply chain risks.

We expect that additional clarity over the commitment, supportive policy updates and establishing trust within markets and our sector will alleviate most of these challenges.

12. What impacts have changing consumer choices/demand had on your business?

We have had positive impacts in terms of:

- More informed clients.
- More demanding clients that challenge our engineering teams to think.
- Increased awareness of the impact of our services, pride.
- Retrofit agenda emerging.

Other impacts:

- The construction sector is extremely busy at the moment, and we have noticed a lack of talent in service delivery for new products relating to net zero.

- Consumer and client lack of trust in funding available and commercial benefits if policy direction changes.

13. What impacts have decarbonisation/net zero measures had on your business?

- Introduced a number of new services under an ESG unit.
- Further engaged with financial institutes and insurers all in support of the cause.
- Upskilled our technical skills.
- Worked with new clients on their projects.
- Focused a lot on retrofit and beyond net zero.
- Our productivity has increased, as did the size of the organisation and profits

14. What more could be done to support your business and/or sector to decarbonise?

- Clear policy direction.
- All new policies to be checked against the target and to be in alignment.
- Support the agenda and communicate louder.
- Support research and development.
- Support industry / policy maker hubs and communication.
- Update planning guidelines.
- Set ESG/Net Zero and Sustainability at the higher policy level.

15. Do you foresee a role for your business within an expanded UK supply of heat pumps, energy efficiency, electric vehicles, hydrogen or clean power?

Yes, as a multidisciplinary construction consultancy we are expecting to offer:

- M&E designs to address heat pumps and other technology application.
- Support of development of sites for nuclear, hydrogen, renewables etc plus R&D.
- BIM and IoT products to enable optimisation of buildings design and operations.
- Design of strategy and ESG products for lenders and investors.
- Energy efficiency, providing retrofit solutions and programmes (PAS2035/2038 and other).

16. For clean power industry: what barriers to entry have you found in deploying clean energy?

N/A

17. How many green jobs do you estimate will be created in your sector by 2030?

By 2030 'green jobs' of today should have transitioned to more standard practice and replace part of the non-green jobs within our sector (construction).

With the introduction of MEES and the Future Buildings standard (FHS 2025), it should be expected that by 2030 most of the construction industry developing products will be greener.

The issue with the definition of 'green jobs' is that there is no exact definition. ONS LCREE statistics already indicate the expected growth.

18. Have you or are you planning to take personal action to reduce your carbon emissions (for example through how you travel, what you buy, how you heat your home)? If so, how?

Yes

- Switch off stand by devices.
- Using less energy by changing thermostat settings.
- No car use at the moment - only public means.
- Always purchase low impact products (emissions and pollution wise).
- Reduced consumption of energy and carbon intense food products.
- Replacement of all lights with LED.

19. Do you face any barriers to doing this? What are they?

- Renting a property that I cannot upgrade (retrofit) as it is not owned.
- Mortgages hard to access to purchase and move to a more energy efficient property.
- High prices of 'green goods' compared to traditional.

20. What would help you to make greener choices?

- More 'green' products available and better prices.
- Restricted access to non-green products and services.
- Greater awareness.
- Supportive policy environment.
- Enhance options for green travelling and use of bicycles.
- Better connected public transport.
- Better access to information and education.

21. What is working well about the measures being put in place to reach net zero?

- The existence of the target and its legal status.
- Some funding opportunities in terms of Salix and social housing funding (they can improve, and they should be available all year round).
- The predicted removal of gas boilers.

22. What is not working well about the measures being put in place to reach net zero?

- No clear narration and commitment.
- Sensitive of the target in terms of current capital expense - without looking into long term benefits.
- Mixed messaging from central governance allowing the space for second guessing and loss of trust.
- Very fragmented funding and support system in place, hard to understand how to navigate it and also on occasion conflict between industry standards and government requirements for access to funding.
- No clear understanding of net zero and quick moves back to old ways, shale gas and natural gas extraction.
- Net zero not easy to communicate to public, at risk to become a buzz word. The outputs of net zero need to be more prominent and best practice to be supported and showcased.

23. Do you have any further comments on how efforts to tackle climate change are affecting you?

Climate change, global warming, biodiversity collapsing, all of the changes will affect me, future generations, global economy and all industries.

It is not a 'nice to have', it is necessary for our long-term wellbeing and thriving that we support and progress toward a low impact future. This will also enable the UK to lead by example and maintain its gravitas in the world scene.

Net Zero, ESG and Sustainability needs to be elevated to the highest level of policy strategy, with all policies checked against it and with the requirements continually improving so it becomes standard practice.



Contact

Tassos Kougionis
Director, ESG

tkougionis@mcbains.com

+44 (0)20 7786 7900

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