

Briefing: Industrial Strategy should have a strong low carbon element

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KEY POINTS

The industrial strategy should:

- **Build on areas of competitive strength** in manufacturing and services in areas such as ultra-low emission cars, smart ICT solutions, energy efficient technologies, offshore wind and project financing of clean energy development, to ensure businesses can take advantage of the global shift to decarbonisation.
- **Complement the forthcoming emissions reduction plan (ERP)** by maximising the growth and employment opportunities in the UK's low carbon supply chain that will flow from a detailed ERP. In particular, by working with Local Enterprise Partnerships to support local businesses in competing for supply chain contracts and by considering how energy intensive industries can be best placed to form part of the UK's growing low carbon supply chain.
- **Include a low carbon skills strategy** to ensure the UK's workforce has the necessary skills to benefit from the growing employment opportunities in the low carbon sector and to support the transition of workers from declining industries such as North Sea oil and gas, to newer sectors such as offshore renewables.¹
- **Reflect the shift to a more resource efficient or "circular" economy.** This is a significant economic opportunity that could help reduce exposure to resource scarcity, create jobs and generate sustainable long-term productivity. Such a shift within Britain could create at least 54,000 net jobs and offset 11% of future losses in skilled employment by 2030.²

BACKGROUND

Prime Minister Theresa May has created a new government department, the Department for Business, Energy and Industrial Strategy (BEIS), putting 'Industrial Strategy' back on the political agenda.

Industrial strategy is the coordination of a set of national policies formulated to encourage industrial production and performance by prioritising competitiveness, trade, investment, innovation, development in areas of existing competence, enterprise and skills.³

Government constantly makes decisions in these areas. The creation of an overarching strategy is welcome because as BEIS minister Jesse Norman MP noted, "to have no IS [industrial strategy] is to have one without knowing it."⁴

The creation of BEIS is an opportunity to develop a pan-economy, long-term strategy that builds on the UK's strengths to create a productive, competitive low carbon economy that works for everyone.

¹ The Telegraph (11th September 2016) "Former North Sea oil workers are finding a second wind in renewables"

² Green Alliance (January 2015) *Employment and the Circular Economy. Job creation in a more resource efficient Britain*

³ BIS (September 2012) "Industrial Strategy. Narrative." Powerpoint presentation.

⁴ Jesse Norman MP tweet, 15th July 2016

WHY SHOULD THE INDUSTRIAL STRATEGY HAVE A STRONG LOW CARBON ELEMENT?

Global context for low carbon action

There is global political momentum to tackle climate change, with the Paris Agreement entering into force and the world committed to keeping global warming well below two degrees compared to pre-industrial levels. The Agreement will drive further growth in the international low carbon market that is already worth over \$5.5tn;⁵ it will affect every sector of the economy and will require significant investment, new products and skills in low carbon and energy efficiency technologies, buildings, infrastructure, power, heat and transport sectors.

“Our global leadership in combating climate change which we will maintain and take forward now presents us with a massive opportunity to enjoy industrial success.”⁶

The Rt Hon Greg Clark MP, Secretary of State for Business, Energy and Industrial Strategy

Making low carbon work for the UK

The industrial strategy must build upon the UK's existing strengths. The UK's low carbon sector had a turnover of £46.2bn in 2014⁷ and was directly responsible for nearly

a quarter of a million UK jobs. As the Chancellor of the Exchequer noted, the low carbon sector is outpacing growth in the economy as a whole.⁸ These jobs are based across economic sectors, ranging from primary manufacturing to services. For example, the UK provided legal and financial advice for a third of new clean energy projects worldwide between 2007 and 2012.⁹

Other competitive sectors include smart ICT solutions that cut carbon emissions, a significant growth area that earned BT £3.6bn revenue in the last financial year. Renewable energy is expected to attract up to £45bn in investment by 2020,¹⁰ ultra-low emission vehicles have seen demand grow by 49% year-on-year¹¹ and energy efficiency already accounts for 136,000 jobs¹² and could deliver up to 108,000 net jobs per year from 2020-2030 across every constituency.¹³ A low carbon industrial strategy provides an opportunity to consider how these growing sectors can be supported.

The industrial strategy should also consider how the UK's energy intensive industries (EIs) can be best positioned to take advantage of the shift to low carbon. Existing government knowledge on the enablers and barriers which impact the sector should be used.¹⁴ EIs are an important part of the low carbon supply chain, providing essential components for new infrastructure such as the glass, steel, ceramics, aluminium and cement required in the insulation, renewables and ultra-low emission automotive industries.

⁵ New Climate Economy (2015) *Seizing the Global Opportunity*

⁶ The Rt Hon Greg Clark MP, speaking at Conservative party conference, 3rd October 2016

⁷ ONS (May 2016) *Low carbon and renewable energy economy, final estimates: 2014*

⁸ Speech by the then Foreign Secretary, The Rt Hon Philip Hammond MP (10th November 2015) “A conservative response to climate change”

⁹ Green Alliance (June 2016) *Will the UK economy succeed in a low carbon world?*

¹⁰ Department for Energy and Climate Change (March 2015) *Delivering UK Energy Investment: Low Carbon Energy*

¹¹ Department for Transport, Office for Low Emission Vehicles news story (8th September 2016) “More drivers choose ultra low emission vehicles”

¹² UK Green Building Council (June 2016) *A housing stock fit for the future: making home energy efficiency a national infrastructure priority*

HOW CAN THE INDUSTRIAL STRATEGY COMPLEMENT THE EMISSIONS REDUCTION PLAN (ERP)?

Aims of the ERP

The ERP should set out the policies and initiatives that will allow the UK to meet its fourth and fifth carbon budgets. It must be detailed and deliverable to build investor confidence and help guide private capital into low carbon power, heat and transport projects at an affordable cost. Public finance must be well targeted to leverage the private finance required to transition to a low carbon economy; by 2020, 51% of the UK's infrastructure investment must be spent on low carbon projects, compared to 33% in 2015.¹⁵

A long term, strategic roadmap will help give British businesses the confidence and agility to respond to the growing global low carbon goods and services market and the export opportunities that come with it, whilst helping to deliver the UK's legally binding climate change targets.

How can the IS support local growth?

The industrial strategy should complement the ERP by considering the people and places that can benefit from low carbon opportunities. The newly appointed ministerial "local growth champions" at BEIS should have responsibility for ensuring that Local Enterprise Partnerships (LEPs) in their

“[Industrial strategy] is not about picking winners, propping up failing industries, or bringing old companies back from the dead. It's about identifying the industries that are of strategic value to our economy and supporting and promoting them.”¹⁶

Prime Minister Theresa May

areas are aware of the implications of the government's low carbon policies and are able to connect local businesses with emerging supply chain opportunities in the low carbon sector.

Some LEPs are already playing a central role in growing low carbon enterprise by ensuring local businesses have the right skills, abilities and information to bid for supply chain contracts. For example, the Solent LEP successfully worked with local firms as they bid for contracts with MHI Vestas' wind blade manufacturing facilities on the Isle of Wight, whilst Humber LEP secured Regional Growth Funding to support 90 local businesses in the offshore wind sector.¹⁷

¹³ Verco & Cambridge Econometrics (October 2014) *Building the Future: The economic and fiscal impacts of making homes energy efficient*

¹⁴ Specifically, the recommendations set out in DECC and BIS's joint work (March 2015) *Industrial Decarbonisation and Energy Efficiency Roadmaps to 2050: Cross-sector Summary*

¹⁵ Green Alliance (2016) "Is 2015 the turning point for low carbon investment in the UK?" http://www.green-alliance.org.uk/resources/lowcarboninvestment_2015.pdf

¹⁶ Speaking at the Conservative Party Conference, 5th October 2016

¹⁷ Regeneris Consulting (November 2015) *Report of the impact of DONG Energy Investments in the Humber Area – November 2015*

Upgrading the UK's skills policy

The industrial strategy must also support the development of a low carbon skills strategy in line with the needs of business and industry to drive the UK's productivity, which has lagged behind competitors' in spite of rising employment and economic growth.¹⁸

“In my view any successful industrial strategy has to be local. The truth is economic growth does not exist in the abstract. It happens in particular places when a business like yours is set up, or takes on more people, or expands its production. And the places in which you do business are a big part of determining how well you can do.”¹⁹

The Rt Hon Greg Clark MP, Secretary of State for Business, Energy and Industrial Strategy

Further and higher education institutions, LEPs and businesses should be encouraged to collaborate and invest in training to ensure school leavers and graduates have the low carbon skills that employers need.

Available funding should be better targeted to support teachers, lecturers, students and apprentices in the embedding of environmental education across different disciplines.

The Apprenticeship Levy is welcome, but could be improved by incorporating standards for sustainability, low carbon business and the circular economy within it as well as giving a degree of flexibility to businesses to determine which method of training might be most appropriate.

Connecting EILs with the low carbon supply chain

The industrial strategy must consider how EILs can be supported in a way that is consistent with the UK's emissions targets, whilst safeguarding well paid jobs in high value businesses and forming the supply chain for new low carbon industries.

¹⁸ BIS & DoE (July 2016) *Post-16 Skills Plan*

¹⁹ Speech at Institute of Directors conference (27th September 2016)

CASE STUDIES: THE LOW CARBON SUPPLY CHAIN IS GROWING IN KEY PARTS OF THE COUNTRY

Green Port Hull

Siemens, DONG Energy and Associated British Ports are creating a clean energy port cluster that will bring £6.3bn of investment, over 1,000 direct manufacturing jobs and thousands more in construction, operations and maintenance of offshore wind farms. This investment in one of the most deprived regions of the UK has had real knock-on impacts for productivity. Humber LEP secured Regional Growth Funding to support 90 local businesses in the offshore wind sector and training opportunities have arisen around the offshore wind industry, from a new Siemens wind turbine blade training facility, to a new University Technical College in Scunthorpe specialising in engineering and renewable energy.²⁰

Jaguar Land Rover

Assisted by Innovate UK, Jaguar Land Rover is making up to 50% of the bodywork of its Jaguar XE from recycled aluminium. The REALCAR (REcycled ALuminium CAR) project has developed a new aluminium alloy that is better for the environment and can also be used by other transport sector producers. Following investment of £7m across three sites, the project has reduced Jaguar's cost base and created a circular business model, with British-based companies in the supply chain including Novelis in Warrington, Zyomax in Uxbridge, Norton Aluminium in Staffordshire, Stadco in Shropshire, Brunel University and Innoval Technology in Banbury. Novelis has invested around £6m in their recycling facility in Cheshire, creating 30 new jobs and increasing production capacity by more than a third.

Jaguar Land Rover has also set up a state of the art £150 million National Automotive Innovation Centre (NAIC) to open in 2017, which will support a 1000-strong team of researchers from Jaguar Land Rover, TMETC, their suppliers and academia. The NAIC will have a significant role inspiring the engineers of tomorrow – from schoolchildren to undergraduates – to develop the skills we need to remain globally competitive.²¹

The Teesside Collective

A cluster of EIs is working to create the first low emission industrial zone in Europe through the development of shared emission reduction infrastructure, particularly CCS capacity. Teesside hosts 58% of the UK's chemicals industry and its industry cluster is responsible for 20,000 jobs, producing £4bn of exports per year. Successful CCS deployment could help protect these jobs and exports.²²

Race Bank offshore wind farm

DONG Energy's Race Bank wind farm will be the first time DONG Energy is using UK suppliers for the entire provision, installation and protection of array cables at one of its wind farms. Its supply chain now includes array cables from JDR in Hartlepool, cable installation from DeepOcean, based in Darlington, and cable protection from Tekmar, based in Newton Aycliffe.²³

²⁰ Regeneris Consulting (November 2015) *Report of the impact of DONG Energy Investments in the Humber Area – November 2015*

²¹ Jaguar Land Rover (March 2017) *Construction begins on new UK automotive innovation centre for Jaguar Land Rover*

²² Aldersgate Group (September 2016) *Setting the Pace: Northern England's low carbon economy*

²³ DONG Energy press release (9th March 2016) "Three UK suppliers for array cables at Race Bank offshore wind farm"