UK trade in a decarbonising world

"Those who fail to bet on the green economy will be living in a grey future... those who embrace green technologies will set the gold standard for economic leadership in the 21st century."

António Guterres, UN secretary general, 2017[1]

UK climate leadership has positioned our businesses to take advantage of the greatest investment opportunity of the century: an estimated £17.5 trillion worth of low carbon investment in emerging economies between now and 2030.[2]

The UK is redefining its place in the world through new trade negotiations. An industrial policy to match the government's Clean Growth Strategy, whilst meeting its commitments to protect the natural environment, will enable UK companies to adopt low carbon solutions at home and export them to a rapidly decarbonising global market.

Low carbon trade is not just an economic story. As a major donor of aid focused on the impacts of climate change, and a country that has taken a lead on reducing its own carbon emissions, the UK is an important supporter of emerging economies charting low carbon paths. In the next ten years the majority of infrastructure spending and economic growth will happen in the global south.

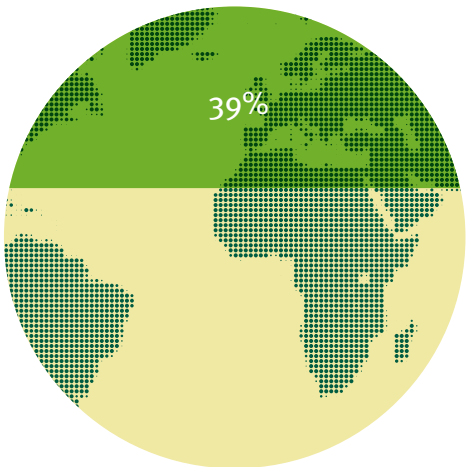
Future trade deals must open up opportunities that benefit the UK and our international partners for the coming decades and not reflect the politics, technologies and investment challenges of the past.

The world is going green

High demand for low carbon

To date, 205 jurisdictions across six continents and 43 countries, including California in the USA, Baden-Württemberg in Germany, Jalisco in Mexico, Acre in Brazil, Wales in the UK and Zhenjiang in China, have committed to cut carbon emissions by 80-95 per cent on 1990 levels by 2050.

Together, they represent 39 per cent of the global economy.[3]

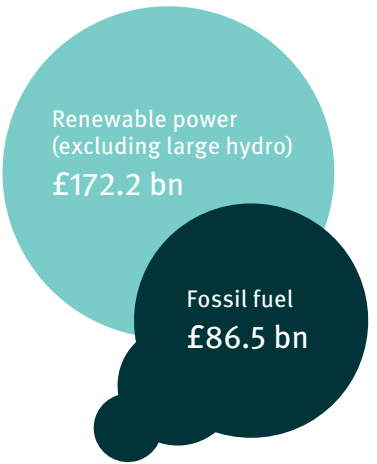


“Meeting the goals of the Paris Agreement is an environmental imperative but it is also an unmissable economic opportunity. Those countries that can properly incentivise and support investment in low carbon infrastructure will be best positioned to revitalise their economies, boost innovation and spur competitiveness.”

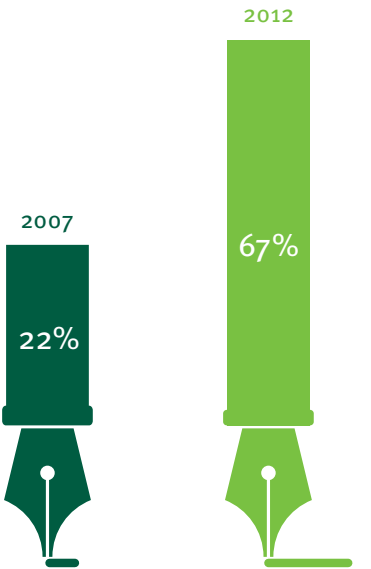
Lord Stern, 2016[4]

The rise of low carbon investment

Global spending on new low carbon power in 2016 was twice that invested in new fossil fuel plants[5]



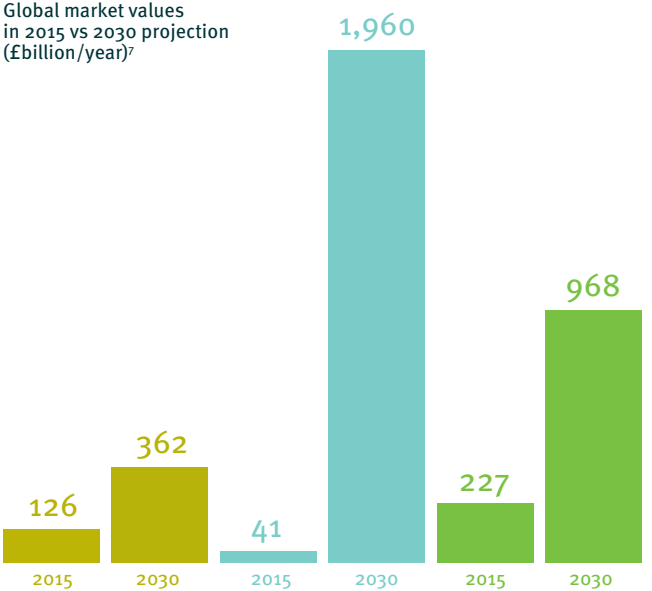
Most trade deals now include environmental co-operation as a core factor[6]



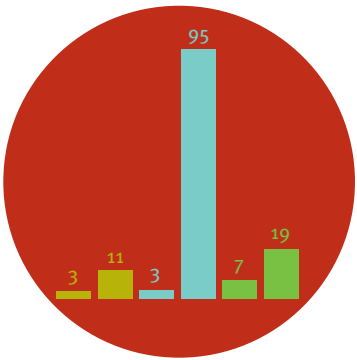
Opportunities in a changing global market

Low carbon trade is growing fast

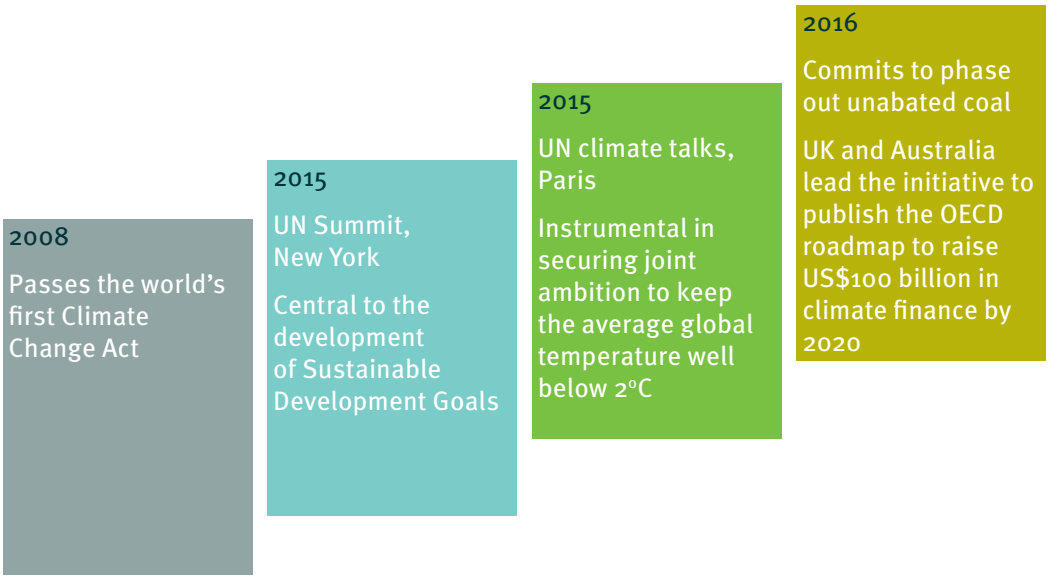
Global market values in 2015 vs 2030 projection (£billion/year)[7]



The UK's share of these markets in 2015 vs potential in 2030 (£billion/year)[8]



The UK's climate leadership record



2017

UN climate talks, Bonn

UK and Canada launch the Powering Past Coal Alliance, a coalition of 20 countries committed to phasing out coal before 2030

2018

As the new Commonwealth chair-in-office until 2020, the UK has an opportunity to push climate up the agenda at the heads of government meeting in London

2020

UN climate talks

Paris Agreement commitments begin

In 2016 the UK was a world leader in reducing its carbon intensity (emissions vs economic growth).[12]

UK reduction -7.7%

Global average -2.6%

21 April 2017 was the UK's first day without unabated coal power since the Industrial Revolution

UK policies have helped business to thrive

Finance

Forty two green bonds in seven currencies, worth £11.2 billion, are listed on the London Stock Exchange.[13] The global market is predicted to be £98.8 billion by the end of 2017.[14]

In 2014, over a fifth of total UK service exports were financial services with a net trading surplus of £39 billion.[15]

Smart energy

In 2015, the UK spent around £689 million, second only to Germany, on smart grid R&D and demonstration projects.[16]

Investment in smart grids across nine emerging economies to 2020 is estimated to total £211 billion.[17]

Offshore wind

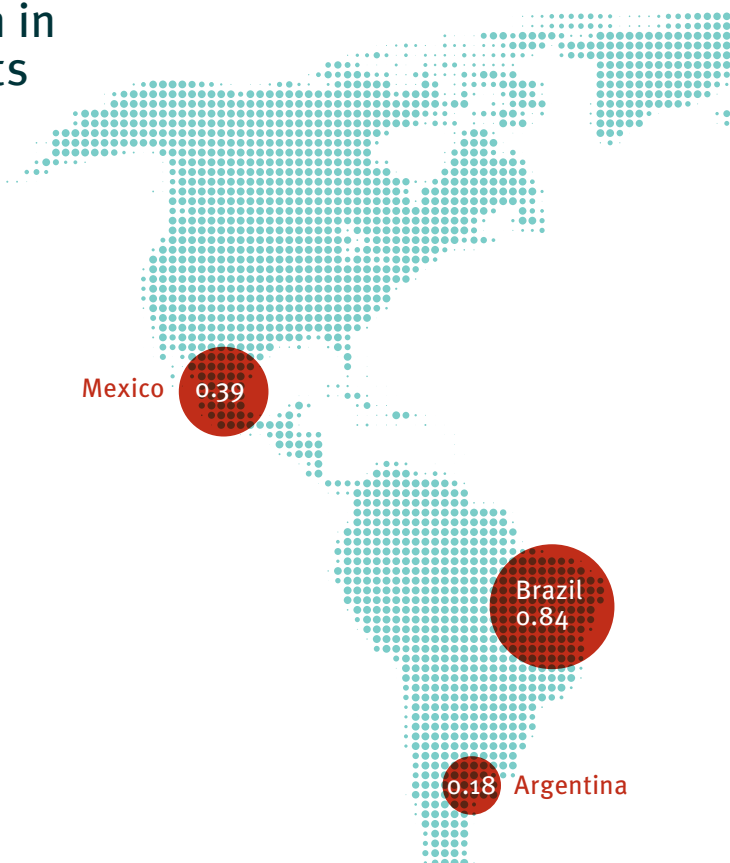
Offshore wind is one of the UK's largest infrastructure pipelines, attracting £11.5 billion of investment in the UK between 2017 and 2021.[18]

The global offshore wind energy market opportunity is expected to exceed £98.8 billion by 2023.[19]

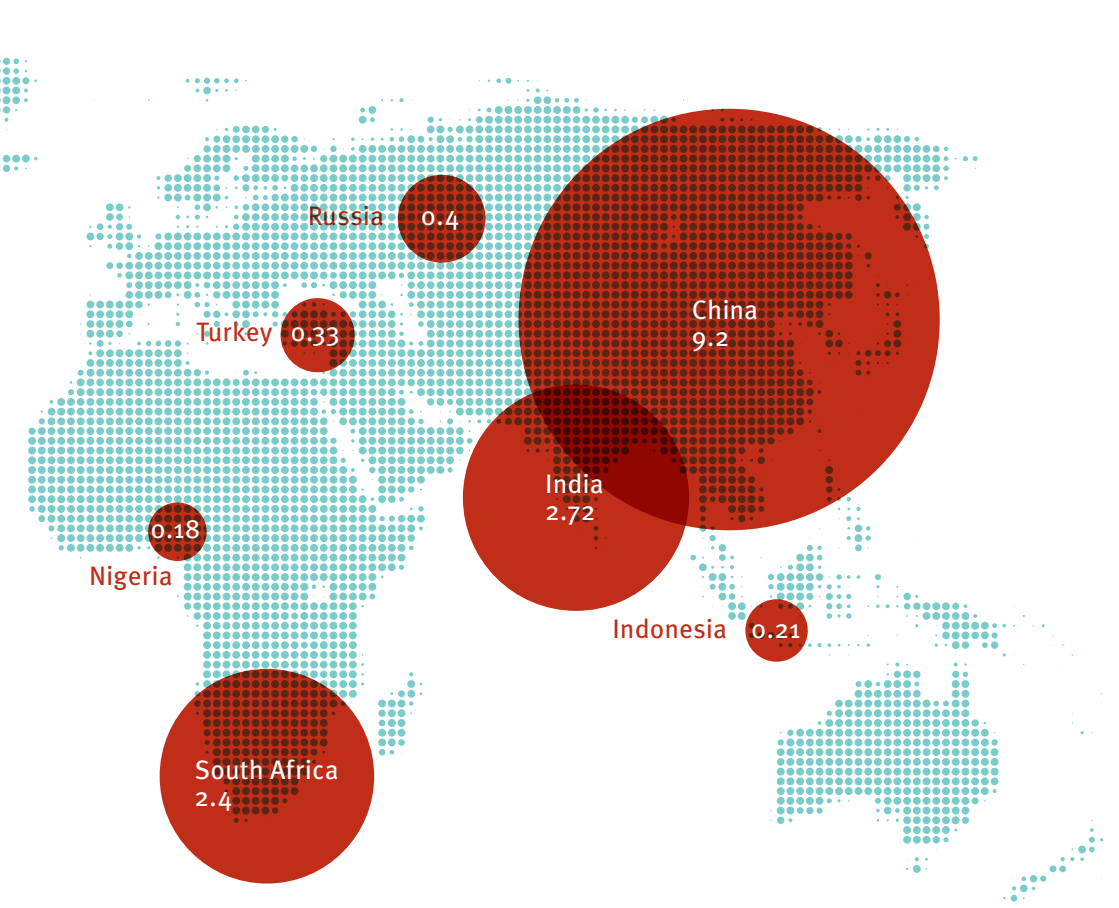
“The unstoppable global shift towards low carbon technologies gives the UK an unparalleled opportunity. By focusing on clean growth, we can cut the cost of energy, drive economic prosperity, create high value jobs and improve our quality of life.”

Claire Perry, minister of state for climate change, 2017[20]

A strong position in emerging markets



UK's winnable share of the global low carbon services market (£ billion)[21]


Russia
0.4
China
9.2
Turkey
0.33
India
2.72
0.18
Nigeria
Indonesia
0.21
South Africa
2.4

“There should be no doubt — in developing countries the world over and especially in Africa — the new climate economy of the future will bring benefits ranging from jobs in clean energy to improved air quality and more productive land.”

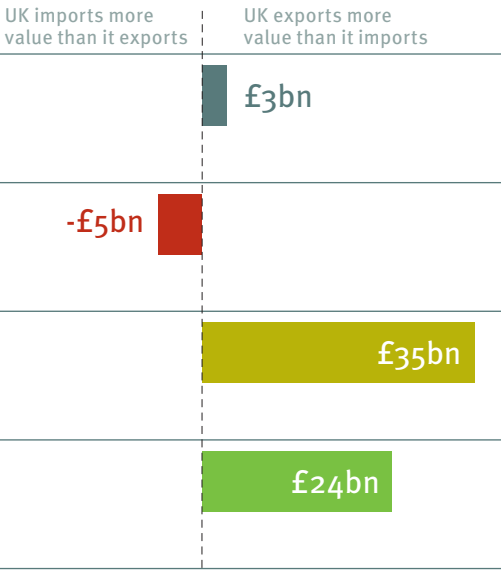
Ngozi Okonjo-Iweala, former finance minister of Nigeria, 2017[22]

How the UK can increase its share of the global low carbon market

Export performance in four key sectors

	Percentage of total UK exports[23]	How much of the export value is created by UK companies?[24]
Chemicals	9%	68%
Automotive	5%	55%
Finance	12%	91%
Professional services	14%	89%

Where is the UK competitive?[25]



What this means

Chemicals are a leading UK export but with high associated carbon emissions. Robust domestic policy on green innovation and carbon capture and storage would keep the sector competitive.

To turn this trade deficit into a surplus, the UK needs to speed up the development of electric and automated vehicles so it can leapfrog its competitors.

As the UK's biggest export earner, the finance sector needs to stay ahead of the competition by leading on the transparency tools and products needed to decarbonise the financial market.

UK engineers, designers and architects are in high demand around the world. Expertise gained in building the UK's low carbon infrastructure will keep them at the forefront of a developing world market.

How to improve UK competitiveness

Chemicals

Address the sector's high carbon impact

This sector is the fourth largest carbon emitter, making up 13 per cent of all UK manufacturing's direct emissions.[26]

High carbon supply chains are likely to become more expensive as the world decarbonises. Ammonia production (one of the largest emitters in the sector) could reduce its carbon emissions by 65-70 per cent with carbon capture and storage.[27]

Automotive

Go big on electric vehicle batteries

By the early 2020s, electric cars will be as cheap as conventional vehicles.[28] There were 121,000 new registrations for plug-in cars in the UK by the end of October 2017, up from 3,500 in 2013.[29]

Jaguar Land Rover is building its first electric vehicle in Austria because of the lack of a battery factory in the UK.[30]

Finance

Don't let leadership slip

There were 200 measures across 60 countries to green the financial sector in 2016.[31]

The UK's 'big four' banks were given a 'D' grade in 2016 for their lack of climate investment policies and exposure to fossil fuels. France is now home to the top three banks for sustainability, rated by investors.[32]

Professional services

Increase export potential with strong domestic delivery

In 2014, the UK exported £57 billion worth of professional and technical services.[33]

Between 2012 and 2016, the UK pipeline for planned low carbon infrastructure fell by 25 percentage points whilst high carbon infrastructure rose by 20 percentage points. This will limit the development of low carbon expertise in the UK.[34]

What the government should do

The world is cutting carbon fast and demand for low carbon goods and services is rising. To ensure the UK can benefit at home and support decarbonisation abroad, the government needs to:

Maintain climate leadership through its commitment to the Paris Agreement, the Sustainable Development Goals and as the Commonwealth's chair-in-office.

Support emerging economies in their inclusive low carbon transition, through climate finance, well-targeted aid and trade deals which help them to deliver their clean growth strategies.

Invest at home to support exports abroad by writing clean growth into Industrial Strategy sector deals, regulating for UK energy efficiency and holding auctions for wind and solar.

Make clean growth central to UK trade by ensuring the country's low carbon sectors are prominent in future trade talks and strategy.

Endnotes

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6 OECD, 2014, *Environment and regional trade agreements: emerging trends and policy drivers*, table 2, 'Percentage of RTAs including environmental provisions', p8

7 Ricardo Energy and Environment, 2017, *Supporting data: global low carbon economy market opportunities*, www.theccc.org.uk/publication/uk-energy-prices-and-bills-2017-report-supporting-research/. Figures based on Ricardo Energy and Environment's 'high' scenario.

8 Ibid

9 Low carbon electricity is defined by Ricardo Energy and Environment as: offshore wind, onshore wind, marine, solar PV, CCS and energy storage.

10 Low emissions vehicles are defined by Ricardo Energy and Environment as: battery-electric vehicles, plug-in hybrid electric vehicles, fuel cell electric vehicles, charging solutions and logistics/telematics. It excludes transmission systems, electric motors and batteries.

11 Low carbon products and services are defined as: advanced insulation, alternative batteries, alternative magnets, industrial catalysts, membranes, recycling lithium batteries and smart grids. This definition differs from Ricardo Energy and Environment as it excludes biofuels and industrial bioprocessing where carbon neutrality is contested.

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23 Green Alliance analysis of: OECD-WTO, 2016, 'Trade in value added (TiVA): Origin of value added in gross exports' (database of 2011 data)

24 Ibid. Global supply chains mean companies import parts and components which they add to and re-export. The value added percentage of gross exports used here indicates which proportion of UK exports is represented by wages and company profits in the UK and how important global supply chains are to a sector's production.

25 Ibid (Figures converted at 1 $US = 0.76 £GBP, November 2017 exchange rate)

26 Committee on Climate Change, 2017, *Energy prices and bills – impacts of meeting carbon budgets*, figure 3.2, 'UK manufacturing emissions, gross value added (GVA) and employment by sector (2014)', p94

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