Climate-related extracts of 'Spending Review 2020': 25 November 2020

Green Industrial Revolution

The recovery from Covid-19 must be green. SR20 provides funding for the Prime Minister's Ten Point Plan, which has set out the government's vision to tackle climate change whilst simultaneously supporting hundreds of thousands of jobs across the UK. As transport is one of the highest-emitting sectors, SR20 prioritises investment to transition to zero emission vehicles, including by providing £1.9 billion for charging infrastructure and consumer incentives. SR20 also provides £1.1 billion to make homes and buildings net zero-ready.

To push the limits of what is currently possible, SR20 also invests in innovative clean energy technologies, building on existing UK strengths and venturing into exciting new industries. This includes £1 billion for a Carbon Capture and Storage Infrastructure Fund, and additional investment in low hydrogen carbon production, offshore wind, and nuclear power. This brings total investment to support a green industrial revolution to £12 billion.

4.4 Green industrial revolution

The UK was the first major economy to legislate for net zero in 2050[footnote 58] and has already taken significant action to reduce carbon emissions and tackle climate change. The UK met its first and second carbon budgets and is on track to overachieve on the third;[footnote 59] has expanded GDP by 75 per cent while cutting emissions by 43 per cent;[footnote 60] and has pioneered renewable energy, with more offshore wind than any other country.

The economic recovery from Covid-19 must build on this, and it must be green. The Prime Minister's Ten Point Plan has set out a vision for Britain to lead a Green Industrial Revolution, protecting future generations from the effects of climate change and destruction of habitats, whilst simultaneously supporting hundreds of thousands of new jobs across the UK.

The NIS, published alongside SR20, is rooted in the expert advice of the highly respected National Infrastructure Commission (NIC), and responds to its ground-breaking 2018 assessment of the country's infrastructure needs. The NIS sets out how we will deliver the greener infrastructure that is fundamental to the Ten Point Plan, and as part of this announces the creation of a UK-wide bank focused on infrastructure and headquartered in the North of England. The bank will support private infrastructure projects to help meet the government's objectives on economic growth, levelling up, and transitioning to net zero.

SR20 sets out how the government will begin to fund the Ten Point Plan, providing long-term settlements in critical areas. The Ten Point Plan mobilises £12 billion to give industry the certainty it needs to invest, supports up to 250,000 green jobs and saves 180 megatonnes of carbon dioxide equivalent. That is the equivalent to taking all of today's cars off the road for around two years.

Through SR20 the UK will also lead the international effort against climate change. Further details on international leadership are set out in Chapter 5.

4.5 Greener transport

Transport accounted for 28 per cent of domestic emissions in 2018, making it the highest emitting sector in the UK.[footnote 61] The government has therefore taken decisive action to end the sale of new petrol and diesel cars and vans by 2030 with all vehicles being required to have a zero emissions capability (e.g. plug-in and full hybrids) from 2030 and be 100 per cent zero emission from 2035.

In order to support the transition to zero-emission vehicles, the government will invest a total of £1.9 billion in charging infrastructure and consumer incentives. This includes:

- £950 million to support the rollout of rapid electric vehicle (EV) charging hubs at every service station on England's motorways and major A-roads, so that motorists can charge their car on long journeys in the time it takes to have a cup of coffee
- £582 million for the Plug-in Car, Van, Taxi, and Motorcycle Grant until 2022-23, reducing the sticker price of zero and ultra-low emission vehicles for the consumer
- £275 million to extend support for charge point installation at homes, workplaces and on-street locations, while reforming these schemes so that they target difficult parts of the market such as leaseholders and small and medium-sized enterprises (SMEs)
- £90 million to fund local EV charging infrastructure to support the roll out of larger on-street charging schemes and rapid hubs in England.

As well as supporting the decarbonisation of private vehicles, the government is making major investments in other clean forms of transport. To encourage more active travel, the government has provided £257 million for cycling and walking in 2021-22, part of the Prime Minister's £2 billion commitment to cycling and walking across the parliament. SR20 also provides £120 million for zero emission buses in 2021-22 which, in combination with the Department for Transport's existing commitment to complete the first All Electric Bus Town this financial year, will support delivery of over 800 cleaner, greener, quieter zero emission buses, helping to deliver the Prime Minister's commitment to 4,000 of these buses.

To drive progress beyond the limits of what is currently possible, SR20 also provides £81 million of R&D funding in 2021-22 to launch a programme of investment in low and zero emission transport technologies. This includes new initiatives on sustainable aviation fuels, clean maritime demonstrations, zero emission freight trials, innovative electric vehicle charging solutions, and funding for a Hydrogen Transport Hub in the Tees Valley.

4.6 Investing in new technologies

SR20 also prioritises investment in clean energy technologies that are critical to net zero. These investments play on the UK's strengths, and build exciting new technologies.

CCS will be essential to meeting net zero globally, and the UK has an unrivalled asset – the North Sea – that can be used to store captured carbon under the seabed. To capitalise on this global opportunity, SR20 provides £1 billion for a Carbon Capture and Storage Infrastructure Fund and will help establish four CCS clusters by 2030, capturing up to 10 megatonnes of carbon dioxide a year by 2030. These clusters will bring jobs and investment to industrial heartlands in areas of North East and North West England, the Humber, Scotland and Wales.

The UK is also well positioned to develop an exciting new industry in low carbon hydrogen production, which could help decarbonise transport, industry, homes and power. Working alongside partners in industry, the UK aims to develop 5 gigawatts (GW) of low-carbon hydrogen production capacity by 2030, supporting up to 8,000 jobs. This will be supported by a range of measures, including a £240 million Net Zero Hydrogen Fund and £81 million for pioneering hydrogen heating trials.

The UK already has more offshore wind than any other country.[footnote 62] By 2030 the government plans to quadruple offshore wind capacity to 40 GW and maximise the opportunities this presents for jobs and investment. To grow the UK manufacturing base, SR20 invests £160 million into modern ports and manufacturing infrastructure, providing high quality employment in coastal regions.

The UK is a leading manufacturer of EVs. The Nissan Leaf, produced in the UK, is the second highest selling EV in the world.[footnote 63] To support the UK's EV manufacturing industry, the government will spend nearly £500 million in the next four years for the development and mass-scale production of electric vehicle batteries and associated EV supply chain. This will boost investment into the UK's strong manufacturing bases, including in the Midlands and North East.

Nuclear power provides a reliable source of low-carbon electricity. SR20 provides over £125 million for nuclear technologies in 2021-22, as part of up to £525 million set out in the Ten Point Plan, including £385 million for an Advanced Nuclear Fund.

The Net Zero Innovation Portfolio (NZIP) will accelerate near-to-market low-carbon energy innovations, stimulating private sector investment and green growth. The government is committing £200 million for NZIP in 2021-22 to support new decarbonisation solutions and bolster emerging technologies such as direct air capture and low carbon hydrogen.

4.7 Warmer homes and buildings

SR20 also continues steps to make homes and buildings, which contribute nearly one fifth of all UK emissions,[footnote 64] more energy efficient and less carbon intensive.

To upgrade the UK's buildings to make them warmer, more comfortable and cheaper to heat, SR20 extends the Green Buildings package announced through the Plan for Jobs[footnote 65] to support jobs and help buildings be net zero ready.

SR20 allocates £475 million to make public buildings greener, £150 million to help some of the poorest homes become more energy efficient and cheaper to heat with low-carbon energy, and a further £60 million to retrofit social housing. It also extends the popular Green Homes Grant voucher scheme with £320 million of funding in 2021-22. The government is committed to spending £3 billion on building decarbonisation, and will review this allocation in the spring, together with how it can best deliver this agenda over the course of this parliament.

SR20 also confirms £122 million in 2021-22 to support creation of clean heat networks. This, together with the measures to be set out in the government's forthcoming Heat and Buildings Strategy, will help meet the target of installing 600,000 heat pumps by 2028, and scale up the

other low carbon heating and energy efficiency measures necessary to make buildings fit for net zero.

Leading the world in tackling climate change

The government is committed to supporting a green recovery from the pandemic and reaching the global goal of reducing greenhouse gas emissions. The UK is a proud signatory of the Paris Agreement and has led the world in becoming the first major economy to legislate for net zero emissions, demonstrating that working to reduce emissions while growing the economy can go hand in hand. The Prime Minister's Ten Point Plan has set out a vision for Britain to lead a Green Industrial Revolution, which mobilises £12 billion of government investment. Through the G7 Presidency and hosting COP26 in 2021, the UK also aims to galvanize high levels of policy ambition and finance from the international community on the most pressing climate and environmental issues.

The UK's commitment to achieving net zero emissions by 2050 will require a major economic transformation, and the government is increasing support for net zero innovation to support this objective. Investments will support and shape the economies of the future, delivering new decarbonisation solutions for high-emitting sectors like transport and demonstrate emerging technologies in a sustainable systems context. SR20 provides over £280 million in 2021-22 for net zero R&D, including an £81 million multi-year commitment for pioneering hydrogen heating trials. These technologies will have a global reach. Further details on net zero innovation is set out in Chapter 3.

Through international work, the UK will support other countries to follow its lead. The UK's International Climate Finance (ICF) has already supported 66 million people to cope with the effects of climate change and reduced or avoided 31 million tonnes of greenhouse gas emissions.[footnote 83] The Prime Minister committed in 2019 to double the UK's public ICF to at least £11.6 billion between 2021 and 2025. An allocation process will be run to confirm splits between government departments for 2021-22. ICF provided through SR20 will help developing countries limit their greenhouse gas emissions and adapt to the impacts of climate change.

The UK has a world leading financial sector and the ambitious transformation ahead will require collective action. To support this, the government is mobilising the sector to support innovation and manage climate-related financial risks. The government will introduce mandatory reporting of climate-related financial information across the economy by 2025 with the vast majority of requirements in place by 2023. The UK will also implement a green taxonomy that defines which economic activities tackle climate change and environmental degradation to help better guide investors.

7.26 Department for Business, Energy and Industrial Strategy

Table 6.19: Department for Business, Energy and Industrial Strategy

	£ billion		
	2019-20	**2020-21**	**2021-22**
Core resource DEL excluding depreciation	2.2	2.2	2.4
Core capital DEL	11.2	16.6	15.5
Covid-19 resource DEL excluding depreciation	0	18.6	1.3
Covid-19 capital DEL	0	1.9	0.5
Total DEL	13.4	39.2	19.7

Table 6.20: Multiyear capital BEIS programmes

	£ billion				
	2021-22	**2022-23**	**2023-24**	**2024-25**	**Total**
Core Research	4.8	5.2	5.8	-	**15.8**
High-risk high-payoff research	0.1	0.3	0.3	0.3	**1**
Net Zero programmes (multi-year only)	0.3	0.5	0.5	0.6	**1.9**

The Department for Business, Energy, and Industrial Strategy (BEIS) settlement includes £2.4 billion resource spending and £15.6 billion capital spending. BEIS's core resource budget has grown by 3.3 per cent and its capital budget by 15.7 per cent in real terms since 2019-20. Core total DEL is now £18 billion and has increased by 13.8 per cent in real terms each year from 2019-20 to 2021-22.

This funding primarily goes towards record-breaking investment in R&D and programmes to help the UK achieve its goal of reaching Net Zero greenhouse gas emissions by 2050.

To support the response to Covid-19, BEIS's settlement includes:

- £733 million for the UK Vaccines Taskforce to purchase successful vaccines for Covid-19. This is part of the total £6 billion the government has provided to procure vaccines. This includes £128 million for UK vaccines R&D and funding for the Vaccines Manufacturing Innovation Centre, which will be capable of producing enough vaccine doses for the entire UK population in 6 months
- over £500 million to support the continued delivery of Covid-19 loans, including paying for the 12-month interest-free period on the Bounce Back Loans and Coronavirus Business Interruption Loan Schemes.

To drive economic growth and forge the UK's future as a global scientific superpower, as set out in the R&D Roadmap, BEIS has been allocated £11.1 billion R&D funding (out of an overall government R&D package of £14.6 billion). This will include:

- an uplift of over £400 million on average per year until 2023-24 for core UK Research and Innovation science, building on our outstanding science base in a range of areas
- at least £490 million in 2021-22 for Innovate UK core programmes and infrastructure to support ground-breaking technologies and businesses
- £350 million in 2021-22 for UK Research and Innovation to support strategic government priorities, build new science capability and support the whole research and innovation ecosystem. This includes the first £50 million towards an £800 million investment by 2024-25 in high risk, high-payoff research
- funding for critical research to tackle Covid-19
- **increased support for net zero innovation, including £200 million in 2021-22 for the Net Zero Innovation Portfolio, to develop new decarbonisation solutions and accelerate near-to-market low-carbon energy innovations.**

To support the government's Ten Point Plan to accelerate the UK's progress towards Net Zero, ahead of hosting COP26 in 2021, BEIS have been allocated over £3 billion of new funding. This includes:

- **providing over £1 billion towards the construction of 4 new Carbon Capture and Storage plants by 2030**
- **confirmation of over £1 billion to make further progress towards delivering the government's commitment to invest in the energy efficiency and heat decarbonisation of schools, hospitals and homes**
- **£160 million to upgrade our portside manufacturing capabilities to help build the next generation of offshore wind farms**
- **£240 million to support industry to produce low-carbon hydrogen at scale and over £80 million to test its use in heating buildings**
- **up to £525 million towards the development of a large-scale nuclear project, subject to value for money assessment, and advanced nuclear technologies, including novel small modular reactors and next generation advanced modular reactors**
- **£500 million to be spent in the next four years on the development and mass-scale production of electric vehicle batteries and support for associated supply chains, boosting investment into our strong manufacturing bases including in the Midlands and North East.**

To support businesses to grow, BEIS has been allocated £557.5 million capital funding for the British Business Bank (excluding Covid-19 business support schemes), including:

- £422 million for the Bank's planned activities in 2021-22, providing access to finance to small businesses across the UK and supporting them to grow
- £56.5 million to fund an expansion of the Bank's Start-Up Loans scheme. This will provide an additional 1,000 loans to help catalyse new entrepreneurship in the economic recovery from Covid-19
- resources to make £270 million in new commitments to support priorities in innovation and growth finance, regional finance, and the National Security Strategic Investment Fund.

The BEIS settlement also includes:

- up to £17 million in 2021-22 to support the exploitation of government owned intangible assets by launching a new unit and fund to scout for and develop government 'knowledge assets' (IP, data, R&D, tech and other intangibles)
- £50.7 million for business support programmes to improve SME productivity through leadership, management and technology adoption
- £2.7 billion for the Nuclear Decommissioning Authority to enable it to continue the work of safely decommissioning the UK's nuclear legacy sites, across England, Scotland and Wales.

7.27 Delivering public value

This settlement includes the following priority outcomes:

- **Reduce UK greenhouse gas emissions to net zero by 2050**[footnote 99]
- Support increased productivity through unleashing innovation and new knowledge throughout the country
- Back business by making the UK the best place in the world to start and grow a business
- Fight Covid-19 by helping businesses to bounce back from the impacts of Covid-19, supporting a safe return to work and accelerating the development and manufacture of a vaccine.