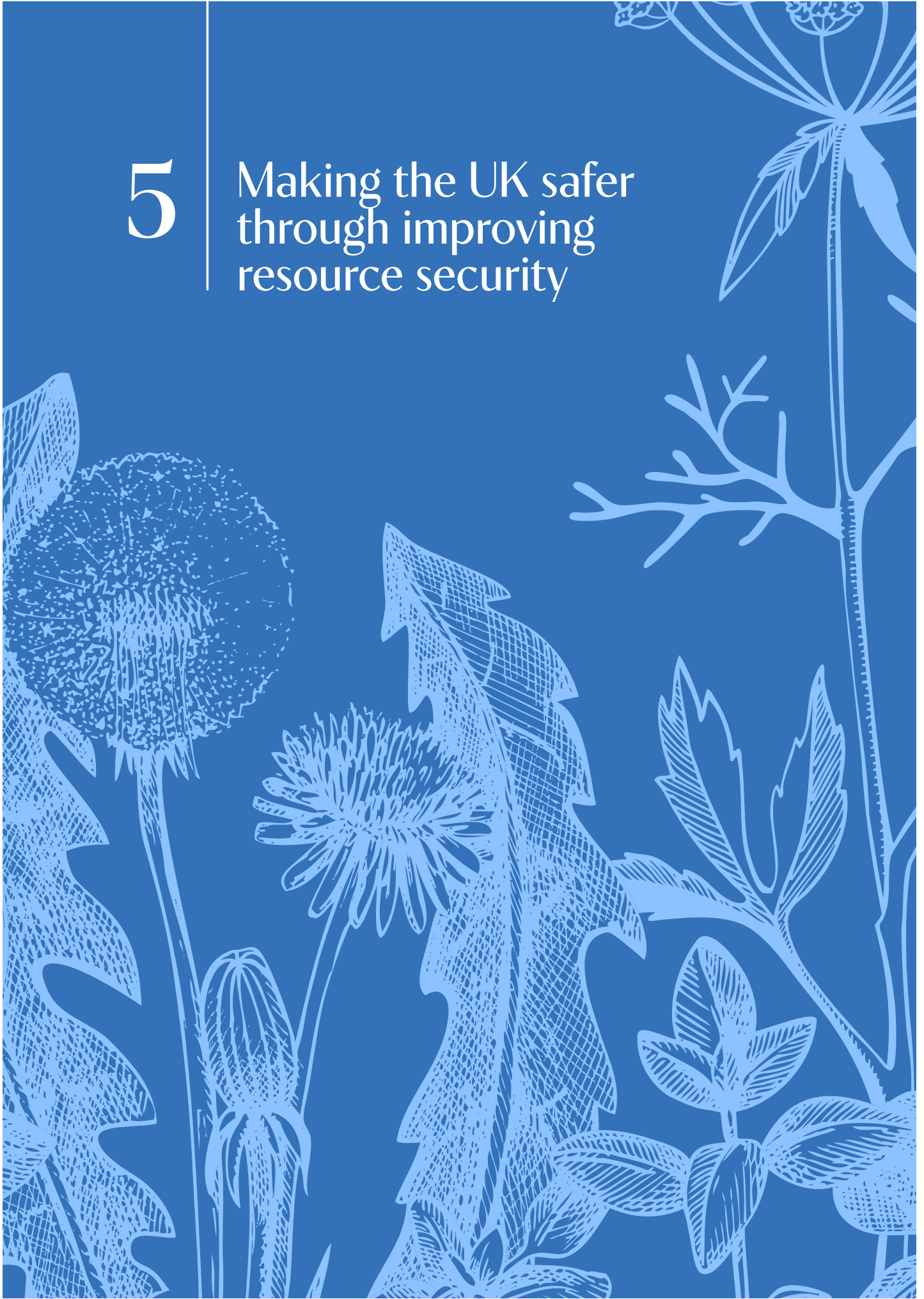


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Making the UK safer through improving resource security



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During the last parliament, the Covid-19 pandemic and Russian invasion of Ukraine underscored the fragility of global supply chains and the importance of enhancing our energy and food security in particular. The transitions to clean homegrown energy production and to more regenerative, lower-input ways of farming, both of which will reduce our reliance on international gas markets that are under the control of autocrats, have become a national security issue, as well as an ecological imperative. Increased resource security does not simply entail increased domestic production at all costs, however: it requires diversity and sustainability of supply, including from imports, and bearing down on waste. In this parliament, as well as accelerating reforms to expand clean power, encourage sustainable farming, and tackle wasteful resource use, it will be important to tackle proactively new resource security risks as a result of the net zero transition, such as timber and critical minerals.

HIGHLIGHTING THE POSITIVE CONSERVATIVE RECORD



The Agriculture Act enabled the rollout of the Environmental Land Management schemes (ELMs), which will restore the foundations of food production and help tackle the biggest medium- to long-term threats to food security (i.e. climate change and biodiversity loss); the last government's waste reforms, including the deposit return scheme, simpler recycling standards, and extended producer responsibility, will tackle littering, boost recycling rates, and increase resource efficiency.

CELEBRATING CEN CAMPAIGN WINS

In the British Energy Security Strategy of 2022, the target for floating offshore wind was increased to 5 gigawatts by 2030, helping the UK stay ahead in the global race for investment in this new technology and harness higher wind speeds in deeper waters

Expand UK forest cover, to improve timber security, sequester more carbon, and provide a sustainable waste feedstock to help industries such as construction to decarbonise.

- **Boost incentives for trees, forests, and woodland:** despite recent improvements in planting rates, we are still lagging behind our target to increase tree cover to 16.5% of England's land area.⁸³ Farmers should be supported to integrate more trees into the farmed landscape by proceeding with creating attractive options under both the Sustainable Farming Incentive and Countryside Stewardship schemes for agroforestry and riparian tree planting. The Nature for Climate Fund should be extended at the next spending review, to encourage larger-scale afforestation on appropriate land. And more private investment in forestry should be unlocked through the introduction of Forestry Creation Zones, with lower regulatory requirements, and clarified guidance on the stacking of multiple private credits for nature, carbon, and nutrients.
- **Restrict future biomass subsidies:** with mounting cost and sustainability concerns, no new large-scale subsidies for bioenergy with carbon capture and storage (BECCS) should be awarded in this parliament. Similarly if subsidies for unabated biomass plants are extended for energy security purposes, they should be strictly time-limited and subject to full financial transparency to ensure taxpayers are not funding excessive profits. As most of the pellets would have to come from overseas, doubling down on biomass power would make us more import-dependent with regards to our energy supply. From a timber security perspective, it would also be an inefficient use of our limited waste timber, which other sectors can use while keeping

the carbon locked up in the material. One estimate suggests a BECCS subsidy contract for one large-scale plant would cost energy bill payers £1.7 billion a year.⁸⁴ Limited sustainable biomass should instead be encouraged to supply our harder-to-decarbonise industries, such as construction, to help them reach net zero.

Increase the diversity and capacity of the UK energy generation mix, helping to ensure security of supply and keep the lights on, harnessing more of our clean renewable natural resources to power Britain, and reducing our dependence on imported gas.

- **Maximise the potential of solar on rooftops and reservoirs:** solar power provides a highly cost-effective way to cut emissions and boost energy security. While ground-mounted solar on less productive farmland will play a critical role in meeting our energy needs, more could be done to maximise the potential of solar on rooftops and reservoirs where land use conflicts are lower. Firstly, floating solar schemes should be allowed to bid into CfD auctions. Existing permitted development rights for floating solar should be extended so developers can sell the power to businesses other than water companies. Floating solar could make a significant contribution to our energy security, with the potential to deploy up to 16 gigawatts of floating solar on English and Welsh water company reservoirs alone.⁸⁵ The UK has relatively low levels of domestic rooftop solar, with just 6% of homes having panels compared to 25% in the Netherlands.⁸⁶ To boost solar coverage, building standards should be strengthened to require solar panels on new homes and commercial buildings. The extra cost of adding panels to a new house is paid back in

under a decade through energy bill savings.⁸⁷ The minimum tariff under the Smart Export Guarantee should also be reviewed for rooftop solar, which pays households and businesses for any excess solar power they export to the grid. Increasing the minimum tariff would boost the financial attractiveness of rooftop solar.

- **Unleash the potential of geothermal energy:** deep geothermal energy could provide a significant source of low-carbon heat for the UK, would disproportionately benefit our more economically deprived industrial heartlands and former coal mining areas, and could fall in cost if economies of scale from reusing drill rigs can be unlocked. Detailed surveying of areas that are suitable for deep geothermal is a critical first step for developing this industry, alongside the inclusion of deep geothermal in local heat network zoning. The industry also needs pump-priming with some funding in order to scale, potentially through a ring-fenced pot for deep geothermal heat within the CfD mechanism, in a similar way to tidal.⁸⁸
- **Build a fleet of small modular nuclear reactors (SMR):** SMRs have the potential to diversify the UK energy mix and provide consistent zero-carbon power, therefore contributing to net zero and energy security goals. However, while there has been good recent progress on setting out the process for designating nuclear sites, the timetable for the SMR competition has already slipped. The outcome should be announced and CfD negotiations concluded with the first project developers as soon as possible, to maximise the chances of SMRs being online by the mid-2030s.
- **Build more long duration energy storage:** the UK has not built any long duration energy storage for 40 years, since the last

pumped hydro projects were commissioned in the 1980s. Since then, the need for long duration energy storage has increased significantly with the expansion of variable renewables. Rolling out innovative and established long duration storage technologies will be critical to maintain security of supply in a renewables-dominated grid, without having to rely on back-up gas plants, and enable surplus renewable power during windy or sunny periods to be stored rather than wasted. Proposed reforms to the capacity market to procure more low-carbon flexibility, such as long duration energy storage, in a market-friendly way should be delivered. It has been estimated that deploying up to 20 gigawatts of long duration energy storage by 2050 would deliver savings of up to £24 billion.⁸⁹

- **Prioritise limited clean hydrogen supply for the sectors where it is essential for decarbonisation:** clean hydrogen will be essential to cut emissions in sectors such as aviation, shipping, and certain industrial processes, but there are more efficient ways to decarbonise home heating and buses than hydrogen. Heating homes through hydrogen boilers is estimated to be at least 20% more expensive than heat pumps, and significantly less energy efficient.⁹⁰ Given the limited supply of clean hydrogen, the focus should be on attracting hydrogen investment into the chemicals sector, hydrogen planes, hydrogen ferries, and hydrogen power stations, over hydrogen buses and hydrogen heating.⁹¹

Strengthen the UK's food security by investing in the foundations of domestic food production, ensuring farmers get a fair return from the market for sustainable food, and enabling innovation in technologies.

- **Maintain the nature-friendly farming budget in real terms:** to strengthen our food security and tackle environmental threats like biodiversity loss, farmers need flexible and generous support to help them adopt more sustainable and resilient farming practices. The transition from the wasteful, inefficient, and environmentally harmful EU Common Agricultural Policy is already underway and offers substantial benefits for farmers, taxpayers, food security, and the natural environment. The new schemes have been improved and take-up has grown, with over 10,000 farmers applying for the Sustainable Farming Incentive this year.⁹² But the budget was frozen in cash terms during the last parliament, meaning high levels of inflation have eroded its value. The budget should be protected throughout this parliament in real terms, with funding to safeguard and restore the foundations of food production, such as healthy soils and pollinators, that also deliver environmental benefits.⁹³ In addition, a broader range of options for livestock farmers should be offered, including standards for hay meadows, mob grazing, and methane-suppressing feed additives. Greater focus should be put on blending public nature-friendly farming incentives with private markets for nature, to maximise incomes for farmers and value for taxpayers' money, and to avoid crowding out private sources of funding.
- **Tackle unfairnesses in the food supply chain:** research has found that average profits for farmers, across a range of staple fresh foods, are paltry, often less than 1% of the profits in the food supply chain.⁹⁴ Several supply chain reviews were carried out in the last parliament. Similar reviews should be conducted for the remaining farming sectors, using more of the powers within the Agriculture Act to publish food supply chain data, particularly in relation to wholesale price transparency, helping

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to improve fairness in contracts between farmers, growers, food processors, and retailers. This will boost the negotiating power and profitability of farmers in the agri-food chain, helping farmers to get a fairer price for their produce, exposing any unfairnesses in the supply chain, and reducing demands for public money to support non-environmental outcomes.

- **Enable innovation in food technologies:** we should seize a key benefit of Brexit by reforming regulations to enable the private sector to deploy cutting-edge technologies to produce more sustainable homegrown food. With expanding global protein demand and climate change affecting yields around the world, these technologies should not be regarded as a threat to farming, but a complement that can strengthen food security. This should include implementing the Genetic Technology (Precision Breeding) Act 2023 to enable farmers to use gene edited crop varieties which can boost yields while reducing reliance on environmentally harmful inputs. The government should also implement the Food Standards Agency's proposed reforms of novel foods regulations to enable alternative proteins to receive regulatory approval faster. There is an opportunity to steal a march on the EU with their more cumbersome regulatory process by pursuing bolder liberalisation, including using risk assessment opinions shared by other trusted regulators.⁹⁵ At the same time, the government should continue supporting the industry's development with R&D funding for scientists and start-ups, liberalise rules to enable public, pre-market tastings, remove the requirement for separate approvals by ministers in all devolved administrations, and allow the FSA to utilise full cost recovery to expand its capacity and enable faster decisions for new foods.

Lead the world in responsible resource management and consumption, by pushing waste policy beyond recycling to encourage more reuse of materials, strengthening resource efficiency and security, and lessening the impact on the environment from resource extraction.

- **Monitor and reduce embodied carbon in new buildings:** major improvements were made during the last parliament to regulations to reduce emissions from new buildings once they become operational. Next year's Future Homes Standard will decarbonise construction further still. However, as carbon embodied in a building from its construction phase accounts for almost half of life-cycle carbon emissions from homes built to higher energy efficiency standards, new requirements to monitor and ultimately reduce embodied carbon in new builds should be gradually phased in.⁹⁶ Embodied carbon standards should apply to new homes only and should not be used to block planning approval for the demolition and replacement of buildings where that offers overall benefits for the environment.⁹⁷
- **Deliver and strengthen EPR schemes:** EPR requires businesses to fund the costs of managing their waste and incentivises them to minimise waste in their product design, but is currently only applied to packaging. It is a conservative approach as it shifts the costs away from taxpayers and onto polluters. It has potential to improve resource efficiency in a range of sectors and so should at least be extended to textiles. Reuse should be incentivised explicitly in a scheme's design, through the setting of reuse targets, embedding ecodesign, and favourable inclusion within any modulated fee structure. To aid the transition towards reusable goods, some of the funds from manufacturers should be

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redirected to repair vouchers for consumers. EPR can stimulate job creation and investment in the reuse and repair economy.

- **Fund a ‘circular city’ trial:** many small-scale and standalone reuse trials have taken place in different parts of the country to put circular economic principles into practice, but they have been limited by their size and scope. A city-wide trial would provide a focus for government-funded research projects and policy development, as well as businesses and not-for-profits looking to test their ideas. These activities would also be ripe for academic research, including the work of the new centre for circular economy research.⁹⁸ The location could be established as a competition between metro mayors, with the government offering a small amount of funding to help cover some of the costs and incentives to entice businesses to engage with the trial.
- **Extend the right to repair for electrical and electronic goods:** the UK is currently the world’s second top producer of electrical waste per person.⁹⁹ Too many electrical products are designed not to last, with repair options made challenging by a lack of spare parts, instructions, and tools. Circular economy regulation requiring firms to offer consumers a ‘right to repair’ should be extended to more electronic goods, to ensure they can be repaired by commonly available tools and guarantee access to spare parts and repair documentation.
- **Sign new critical minerals partnerships:** critical minerals are essential for many clean technologies, yet mining and processing is concentrated overseas. We should seek to strengthen our security of supply by co-financing new mining and refining facilities, cooperating on signing suppliers-of-last-resort agreements, and reducing trade barriers for critical minerals, including tariffs. At the same time, we should use our roles in

international fora to strengthen environmental, social, and governance standards for critical mineral mining and processing, to tackle unethical practices across the current supply chain. We should also seek to reduce our reliance on virgin critical minerals where possible, by encouraging more circular approaches in government policies to promote clean technologies.¹⁰⁰

- **Require food waste reporting by large food companies:** in the UK, an area approximately the size of Wales is used to grow food and drink that goes on to be wasted.¹⁰¹ This is a moral, environmental, and economic outrage. Requiring food waste reporting by large food companies would incentivise supermarkets and other large firms to measure the problem and provide the impetus to reduce it. It could also enable innovative schemes where surplus food can be given to food redistribution charities rather than left to go to waste.