

# Labour's Green Prosperity Plan: is it necessary and what will it achieve?

October 2023

### Introduction

The debate about the affordability of Labour's proposed Green Prosperity Plan (GPP) risks distracting from the fact that funding the green transition requires serious, sustained investment, starting right now. It also misses another crucial point: the investment will more than pay for itself over the medium to long term through increased efficiency, lower energy bills and higher economic growth.

The Climate Change Committee's (CCC's) [sixth carbon budget](#) projects that low carbon investment each year will have to increase from £10 billion in 2020 to over £60 billion annually by the mid-2030s.<sup>1</sup>

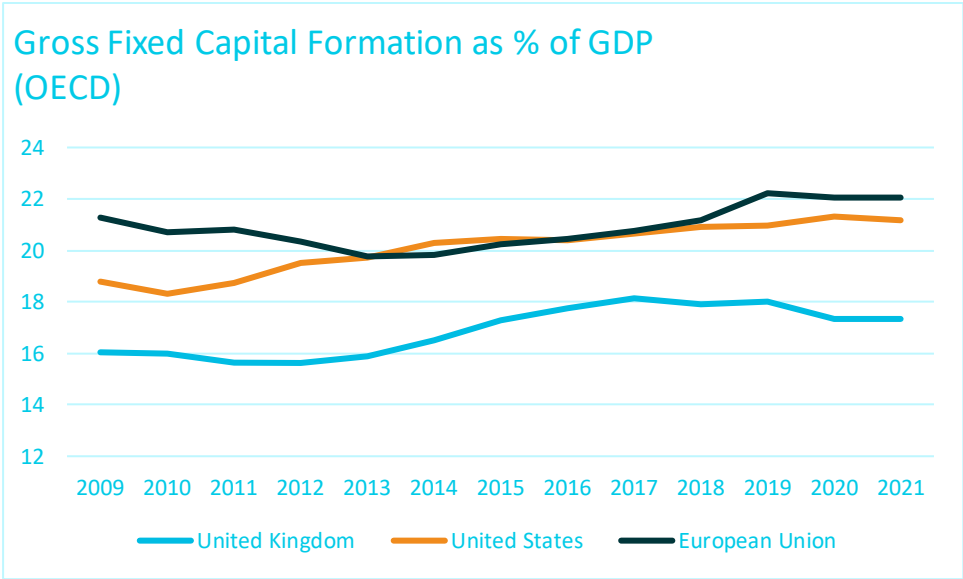
Much of this money will come from the private sector. However, private investment in areas such as the green transition is not necessarily automatic even when there is a very good business case for it. The risky and system-wide character of the transition provides an important catalysing role for the government to crowd-in private spending through initial public investment.

Moreover, this investment must be substantial and needs to come as early as possible in the coming parliament to maximise its effect. Our [analysis](#) suggests there is little point in drip-feeding project finance as this simply creates the expectation that subsidies will continue to rise.<sup>2</sup> This can, perversely, encourage private companies to postpone their investment plans, as the assumption is that even higher subsidies will be available in the future.

In many green industries, provision of an initial infrastructure is also a prerequisite for subsequent investment. For example, hydrogen requires a supply infrastructure to be provided before industries will commit to using it. Early investment also means efficiency savings and the benefits of lower energy bills accrue over a longer period of time.

While £60 billion by the middle of the next decade is a large sum, it should be noted that the total size of the UK capital stock was [estimated](#) by the ONS at £4.5 trillion in 2019 and the extra spending called for would amount to less than one per cent of GDP.<sup>3</sup> As the graph below shows, the UK has under-invested for years compared to peer economies so there is a lot of ground to make up.

IPPR [analysis](#) suggests an investment gap – what the UK public and private sectors would have invested had it reached the average of G7 countries over the last 15 years – of almost half a trillion pounds.<sup>4</sup> Low levels of investment – in infrastructure, technology and skills – is strongly implicated in the UK’s poor record on growth and productivity since the global financial crisis.<sup>5</sup> The government’s own [analysis](#) suggests that weak investment is responsible for around half of the productivity gap compared to France and Germany.<sup>6</sup> While Labour’s plans sound ambitious, the IFS points out that the Green Prosperity Plan – if implemented – would mean high levels of investment by recent UK standards but would still leave investment on a falling path over the next parliament.<sup>7</sup>



The CCC claims this investment will pay for itself by 2050 through lower operating costs arising from greater efficiency. In fact, the breakeven point could potentially come much earlier, owing to the dynamic effects of higher GDP, and raised productivity and competitiveness in leading economic sectors that the investment will help to bring about. Macroeconomic analysis by Cambridge Econometrics commissioned by the CCC for its Sixth Carbon Budget suggests a boost of around two per cent of GDP by 2030, with an accompanying boost to employment of around one per cent.

The CCC also notes considerable co-benefits from investment in carbon abatement that are not included in the economic assessment, such as improved mental and physical health.<sup>8</sup> Developing new green industries such as hydrogen and renewables will also help modernise the UK’s industrial base, producing technology spillovers that could benefit other industries, and will enhance UK energy security in a more dangerous world.<sup>9</sup> **There is, therefore, an extremely strong, in many ways unanswerable case, for a major public investment programme in the green transition.**

Nevertheless, to maximise these benefits, it is vital that the spending is well targeted. This briefing presents our analysis of the investments needed over the coming parliament (assumed to be 2024-29) if the UK is to be on course to meet its climate targets and shift the economy into fast growing green industrial sectors.

These investments, overall, could go a long way towards bridging the emissions gap of 120Mt of CO<sub>2</sub> emissions, identified in the June 2023 update of our [Net zero policy tracker](#) for the fifth carbon budget period (2028-32).<sup>10</sup> This gap corresponds to 24Mt annually and is about 15 per cent of the total emissions savings required.

## The scope of this briefing

We focus mainly on capital expenditure (CapEx), as this is the area where the private sector may be reluctant to invest upfront for various reasons, notably: the scale of the investment required; uncertainty over the payoffs, owing to market and delivery risks; and difficulties in co-ordinating the move into new markets among multiple firms and their suppliers across sectors. However, some of the funding models we have analysed assume some subsidy for operating expenditure (OpEx) as well, notably carbon capture and storage (CCS). There is also a good case for including investment in skills in the spending envelope, as chronic skills shortages otherwise risk holding up the development of green industries.<sup>11</sup>

Part of the case for Labour's Green Prosperity Plan, or something similar, is its dual role in helping to meet climate goals while also making up for decades of inadequate investment that has acted as a serious brake on economic growth. Because it entails shifting economic activity from declining sectors into newer and more technologically sophisticated ones, green investment [generates beneficial spillovers](#) that raise productivity, particularly where this meshes with existing local economic capabilities.<sup>12</sup> It would also produce significant commercial opportunities, with [government analysis](#) suggesting the UK's 12 low carbon sectors with the largest potential for innovation could contribute £27 billion to the economy through domestic economic activity and £26 billion through exports by 2050.<sup>13</sup>

Therefore, funding should ideally be targeted at regions with existing or potential comparative advantage in those sectors or which face potentially greater social costs in transitioning from brown to green industries, as we discussed in our recent report [The cluster effect](#).<sup>14</sup> Spreading the investment across multiple sectors and regions, in the way we describe, increases the chances of this and also reduces the risk of inflationary supply bottlenecks where capacities take time to ramp up. This could be aided by more strictures on local content requirements.

## Estimates of annual required spending over the parliament (assumed to be 2024-29)

Sector	Annual total
Renewables	£360m
Nature	£1bn
Steel decarbonisation	£600-800m
Industry and the circular economy	£845m
Hydrogen	£1.25 – £2.16bn
Heat pumps	£1.5bn
Home insulation	£6bn
EVs	£1.095bn
Transport (total)	£1.665bn
Carbon capture and storage	c.£2.5bn
Electricity grid	£8.8bn
Skills	£1.06bn
<b>TOTAL</b>	<b>£26.675bn – £27.785bn</b>

Below we outline in more detail the areas of Green Prosperity Plan by the level of spending required:

### Low level spending: £1 billion a year or less

#### 1. Renewables

There is a low expectation for CapEx support in this sector, as it is now mostly funded by billpayers through contracts for difference (CfD) rather than the government. But there may be pressure to support more R&D, for instance to offer subsidies to developers of improved renewable technologies to nullify the attraction of US Inflation Reduction Act (IRA) funding.

More investment might be needed in building a domestic supply chain in the face of raised competition for components. Sumitomo, for example is [reportedly](#) spending £200 million to build a small cabling plant in Scotland.<sup>15</sup> Extra investment, expected to be worth £1.8 billion over the parliament, is also needed to upgrade UK ports so they are renewables-ready. The necessary infrastructure investment should be committed early to provide reassurance for manufacturers against transport bottlenecks. The government's Net Zero Strategy promises £380 million to develop offshore wind by investing in supply chains, infrastructure and the early co-ordination of offshore transmission networks.

Our [analysis](#) suggests that the areas of north east Scotland, East Anglia and south west England have potential to be leaders in offshore wind in future and, therefore, will have the greatest ability to leverage public funding.<sup>16</sup> Our

[analysis](#) also suggests that the recent rise in interest rates will push up the price of renewables substantially, thereby increasing inflation. The preferable means of addressing this risk is for the Bank of England to use its price stabilising tools to keep the interest rates that renewables face low, to better achieve its inflation target. However, there is precedent for subsidising interest rates, which would require additional spending.<sup>17</sup>

Renewables annual total = [£360m](#)

## 2. Nature

To meet the UK's overall carbon targets and restore nature, it is very likely that the least productive ten per cent of farmland will need to shift largely away from loss-making food production to a business model focused primarily on profit-making woodland, wetland and other semi-natural habitat creation and management. The government's £640 million nature for climate fund, earmarked to pay for afforestation and peatland restoration, has been paying out around £128 million a year. Other funding pots, for example the Climate Finance Funding for Nature, which pledges £3 billion to climate change solutions that protect and restore nature and biodiversity over five years, have not yet resulted in any spending.

Green Alliance has called for capital investment of £1 billion per year in the creation of woodlands, wetlands and other nature-rich habitats between 2024 and 2030.<sup>18</sup> This is justifiable on the value of carbon reductions alone, but it would have two large co-benefits: it would enable the UK to meet its 2030 nature targets and increase farm incomes in Britain's least affluent rural communities.

Nature annual total = [£1bn](#)

## 3. Steel

Steel is an important industry and provides essential inputs into other sectors of UK manufacturing, such as wind turbines and electric vehicles. In 2020 the government consulted on a £250 million clean steel fund to decarbonise the industry, which it promised would be available in 2023. Recently, any references to this have disappeared. On 15 September 2023, the government announced it was committing up to £500 million to support Tata in converting its Port Talbot plant to electric arc furnaces (EAFs).

## Summary of total CapEx spending recommendations for steel

Site	CapEx	Justification
Port Talbot (Tata Steel)	£0.75bn	Support to switch to EAF production or (should Tata prefer) CCS steelmaking
Scunthorpe (British Steel)	£0.75bn	Support to switch to 50 per cent EAF with CCS for the remainder of this site
New site (TBC)	£0.65bn	Hydrogen Direct Iron Reduction (DRI) facility, supplying all UK EAF producers
n/a (various scrap sorting facilities)	£0.35bn	Need to increase supply of high quality scrap to meet increased demand
n/a (various steel sites)	£0.5bn	Clean steel fund: for incremental efficiency and fuel switching support
<b>Total spending</b>	<b>£3 billion</b>	

Green Alliance [estimated](#) before the Port Talbot announcement that total spending of £3-4 billion will be needed to 1) fully decarbonise Port Talbot as well as the UK's other remaining blast furnace steelmaking plant at Scunthorpe (British Steel) using EAFs or an alternative; 2) to set up a new hydrogen direct reduction facility for producing iron from iron ore that could be used by all players in the steel industry and lower the risk of providing capital support to foreign owned companies; 3) improve scrap steel processing to ensure sufficient quality of scrap for green steelmaking in EAFs.<sup>19</sup> See the table above for a summary of recommended total (not annual) spending. Most of this capex would need to be frontloaded to enable the transformation of the two remaining blast furnace sites in the UK by 2035 at the latest, in line with CCC recommendations.

The government should improve the operating environment for steelmaking to make corporate investment more appealing and minimise the amount of

subsidy it needs to provide for capital improvements. It is also vital workers are at the heart of decision making about the future of individual sites.

Steel industry annual total = £600-800m

#### **4. Industrial decarbonisation and the circular economy**

Industries and supply chains built around the consumption of fossil fuels account for around 16 per cent of the UK's greenhouse gas emissions.

The government has announced a £315 million [Industrial Energy Transition Fund \(IETF\)](#) to be spent in the five years up to 2027. Most funds have been released, mainly to projects that focus on energy efficiency in heavy industry, with a new round of funding to be announced from 2024. Green Alliance argues that the benefits of the circular economy do not just pertain to heavy industry but are about fostering a widespread shift away from linear business models that contribute to a 'throwaway culture'. In this light, the IETF alone is almost certainly going to be insufficient to enable all UK businesses to realise the potential profit from resource efficiency.

The CCC has called for additional CapEx spending per year between 2025-29 of £168 million for energy efficiency, £60 million for fuel switching (excluding money allocated to steel decarbonisation discussed above and £170 million for hydrogen. The fund should, therefore, be spent over the three year spending review period, and supplemented by a further £800 million, to [support](#) a manufacturing upgrade programme. This is equivalent to an annual investment fund of £558 million.

The government has also allocated £170 million to set up a net zero hub of heavy industry. Given the scale and urgency of the climate challenge, similar hubs should be supported in other parts of the country. The government should allocate an additional £350 million for two other low carbon clusters to support a rapid decarbonisation of heavy industries. These sums should be spread over six years, equating to an annual total of approximately £87 million per year.

In addition, following on from the government's Waste Infrastructure Delivery Programme (which had a budget of £3 billion over 12 years, largely dedicated to 'energy from waste' infrastructure), a new resources infrastructure fund should be launched. This time, the emphasis should not be on subsidising incinerators but on promoting infrastructure, logistics and business models that enable resource reduction, reuse and recycling. This implies annual spending of £200 million, which is likely to be more than matched by private funding, as the waste and resources industry alone has said it would be prepared to invest at least £10 billion over ten years to deliver the government's resources strategy, given the right policy support.<sup>20</sup>



Industrial decarbonisation and circular economy annual total = £845m (£558m for fuel switching; £87m for additional low carbon clusters; £200m for waste infrastructure)

## Medium level spending: £1 to 3 billion a year

### 5. Hydrogen

Hydrogen is a flexible long term energy storage medium which can also produce high temperature heat for industry. Our [analysis](#) shows it is likely to be best used for heavy industry and inter-seasonal energy storage, not home heating.<sup>21</sup> Current government plans are to generate 10GW (half 'green hydrogen', half 'blue hydrogen') of low carbon hydrogen production by 2030.

To pay for this, the government is establishing a £240 million Net Zero Hydrogen Fund for CapEx. It is understood that Labour will shift this capacity to green hydrogen only and has pledged £500 million from the Green Prosperity Plan towards this. Estimating the CapEx cost of hydrogen depends on the choice of funding model. Production of blue hydrogen is already supported by the £20 billion CCS pot for 20 years, announced in March 2023. For green hydrogen, the current plan is for a contract for difference to cover OpEx, indexed to the price of natural gas.

Government [analysis](#) puts investment costs for green hydrogen at between £750 and £1,300 per kW, equating to between £7.5 billion and £13 billion for 10GW of electrolyser capacity by 2030, depending on the technology. However, it argues that costs will come down considerably over time.<sup>22</sup>

Hydrogen annual total = £1.25bn to £2.15bn

### 6. Heat pumps

Most homes are heated by gas, but heat pumps are more energy efficient and can be powered from renewable sources. Where well installed, heat pumps can provide slightly cheaper heating than gas, and cut heating emissions by 70 per cent. There are several potential routes to encouraging their uptake.

We recommend that the government extends the Boiler Upgrade Scheme, a grant offering £5,000 for an air source heat pump (recently increased to £7,500) and £6,000 for a ground source heat pump to 2025. This would cost roughly £0.65 billion per year but, if extended to 2028, it would only cover 15 per cent of the 600,000 annual heat pump installations needed by 2028 and would not include the cost upskilling existing gas boiler installers, or a public information campaign to raise awareness. Introducing a heat pump mandate, which would oblige boiler manufacturers to install a rising share of heat pumps as a fraction of their total sales, would allow this grant to be means tested to apply to lower income households only.



To reach the government's target of 600,000 installations per year over the next parliament, we recommend the government covers half the cost of heat pump installations (which will reduce in cost due to economies of scale over time). This would cost £7.5 billion, or £1.5 billion per year.

Heating annual total = [£1.5bn](#)

## High level spending: over £3 billion a year

### 7. Insulation

Home insulation is part of making the green transition as equitable as possible, since cold, draughty homes are concentrated among the poorest households. Fifty seven per cent of low to middle income households live in homes with an EPC rating of D or below. These will pay an extra £580 for adequate heating this coming winter compared with a home rated EPC C or higher.<sup>23</sup>

The government has allocated £1 billion through the ECO+ programme to help insulate the least energy efficient homes in the lower council tax bands, as well as targeting the most vulnerable, with half of this spent so far in this parliament. Our [Net zero policy tracker](#) suggests that only around a quarter of the emissions reduction targets for the heat and building sector (of a reduction of 121Mt CO<sub>2</sub>e over the period of the sixth carbon budget) are covered by existing policy.<sup>24</sup>

Labour has [said](#) it will spend £6 billion a year on home energy efficiency over the parliament.<sup>25</sup> Labour claims this investment will benefit 19 million homes and save families £400 a year on energy bills.

Insulation annual total = [£6bn](#)

### 8. Electric vehicles (EVs)

New petrol and diesel cars and vans will not be available for purchase after 2035, following the government's announcement on 20 September that the previous phase out date of 2030 was being pushed back by five years. The earlier date was intended to stimulate early investment in the switch to EVs, with the UK having already fallen behind the US, EU and China in EV manufacturing. Funding is needed to encourage both the supply and demand sides of the transition: supporting manufacturers in transitioning their business models; providing the necessary charging infrastructure; and doing more to enable low income households to purchase EVs.

**Support for EV manufacturing:** The UK car industry supports an estimated 800,000 jobs directly and indirectly and generates over £70 billion in

revenue. [Industry analysis](#) suggests that retaining current levels of private vehicle manufacturing will require 80GWh of battery production per year by 2030 across four or five gigafactories.<sup>26</sup> Jaguar Land Rover (JLR) has [reportedly](#) been offered £500 million in subsidy for its Somerset gigafactory.<sup>27</sup>

In total, the UK government has invested £1.5 billion in the sector over the past decade, via the Automotive Transformation Fund to stimulate the EV supply chain and the Faraday Battery Challenge which focuses on R&D and early stage commercialisation.

Labour has pledged £2 billion of public money over the coming parliament to support building gigafactories.

The government has reportedly committed £500 million to Tata and JLR to develop a 40GWh gigafactory in the UK. If this is developed, alongside the Envision plant in Sunderland, the UK will still be 22GWh short of battery capacity by 2030. £250 million to provide this capacity would be sufficient but the next generation of gigafactories must begin construction. We recommend that gigafactories receive £1 billion over the course of the parliament (£200 million per year).

Importantly, other aspects of the supply chain must also be built up to secure investor confidence. While gigafactories act as a linchpin for investment, government support must also be directed to battery recycling plants, cathode active material production, material processing, refining and extraction. None of these elements of the supply chain are well developed in the UK, so direct subsidy will be needed. We [recommend](#) stimulating private investment in these sectors by committing £2 billion over the course of the parliamentary term.<sup>28</sup>

We estimate the need for £600 million annual public spending on EV and battery manufacturing: £200 million for gigafactories and £400 million for supply chains.

**Charging points:** Adequate charging infrastructure is essential to sustain demand for EVs. The government is spending £1.6 billion under its Electric Vehicle Infrastructure Strategy to deliver its target of 300,000 public chargers by 2030, including its Local Electric Vehicle Infrastructure (LEVI) and Rapid Charging Fund.

Public chargers (increasing at around a third a year) are growing at a rate consistent with the government's target of 300,000 public chargers by 2030. However, there are problems with coverage in parts of the south west, East Anglia, Wales, Northern Ireland and the north of England, and across the motorway network.

National Grid [estimates](#) that a network of ultra-rapid charging stations, designed to enable 95 per cent of drivers in England and Wales to be within 50

miles of a rapid charger (suited to long distance travel), would cost £0.5-£1 billion, broadly in line with the government's plans.

We estimate the need for £100 million annual spending on charging.

**Support for the second hand car market:** There is a rationale, which Labour has previously recognised, for loans to switch to EVs for those on low incomes. In total, the government has spent £532 million on consumer incentives for ultra-low emission vehicles.<sup>29</sup> This includes £403 million for extending the plug-in car grant to 2022-23, although the scheme is now being wound down. We recommend interest free loans to encourage drivers to switch to low emission vehicles. The Scottish government is spending £30 million this financial year to support the low carbon transport transition, including loans for second hand electric vehicles. We calculate that scaling this across the UK would cost £395 million a year.

Electric vehicles annual total = £1.095bn (£600m for gigafactories; £100m for charging; £395m for support for second hand purchases)

## 9. Other transport

**Rail and buses:** Around 40 per cent of the UK's rail network is currently electrified, compared with 60 per cent in most European countries, with the remainder of the network using diesel trains.

The Climate Change Committee (CCC) calls for the gradual electrification of up to 55-60 per cent of the network by 2050. This would be likely to include reviving stalled projects like electrification of the East Coast Mainline. Industry [analysis](#) suggests electrification at scale could bring costs down to between £750,000 and £1 million per single track kilometres (stk). Network Rail's [Traction Decarbonisation Network Study](#) (TDNS) estimates that electrification of at least 13,000 stk is needed to deliver a zero carbon railway network by 2050.<sup>30</sup> This implies total investment of up to £13 billion, or £480 million annually, equating to £2.4 billion over the parliament.

[IPPR](#) calls for £360 million annual spending on bus services to electrify the fleet through by extending the ZEBRA scheme.<sup>31</sup> This equates to £1.8 billion over the parliamentary term. The same paper found that all local authority applications for funding to invest in their Bus Service Improvement Plans came to £10 billion, however only £1 billion has been allocated to half of the local authorities that applied, due to the competitive nature of the grants, out of the promised £3 billion.

Spending the full £3 billion on improving local services and supporting the electrification of the bus fleet would cost the next government £960 million a year.

**Walking and cycling:** This year, the current government made a [significant cut](#) to the active travel budget. If an incoming government were to match the ambition promised before the cut, this would mean committing £3.8 billion over one parliamentary term to walking and cycling, with £760 million annual spend (it is not clear, though, how much of this would be CapEx). This would triple the current annual spend on active travel of £225 million.

Transport annual total = [£1.665bn](#) on public transport and active travel (£480m for rail; £960m for buses; £225m for walking and cycling)

## 10. Carbon capture and storage

Industrial decarbonisation through carbon capture and storage (CCS) could avoid the offshoring of production and jobs and support the UK's ability to remove carbon from the atmosphere. The current ambition is to capture and store 20-30Mt of carbon emissions a year by 2030. The business department [estimates](#) this will require total investment of £15 billion in transport and storage assets by 2030.<sup>32</sup>

This will be kickstarted by £1 billion of public money spread across four clusters initially. The government is [committed](#) to deploy two CCS clusters by the mid-2020s and a further two by 2030 (on Teesside, Humberside, Merseyside and Grangemouth), which will together capture approximately 22Mt of CO<sub>2</sub>, which is towards the bottom end of its target.<sup>33</sup>

Two other clusters, which a future government might want to consider funding, are located at Southampton and South Wales. These are projected capacity to capture another 12.5Mt of CO<sub>2</sub> a year. The government estimates CCS could support up to 50,000 mostly high skilled jobs by 2030, located in the North West, the Humber, the North East, Scotland and Wales.

CCS total annual total = around [£2.5bn](#) for four CCS clusters

## 11. Electricity grid

Over the next decade the plan is to convert homes, cars and many industrial processes to run on electricity. To achieve this, it is not only necessary to decarbonise electricity generation but also build a grid with enough capacity to handle increased demand and supply. A [study](#) by National Grid ESO (the transmission system planners) suggests a need for investment in the onshore electricity grid of £21.7 billion by 2030, or £3.6 billion annually.<sup>34</sup> For offshore, the requirement is £32 billion by 2030, or £5.3 billion annually. Combining these totals (and subtracting the annual £100 million spending on EV charging infrastructure, covered elsewhere in this briefing) gives a total of £8.8 billion, although the split between public and private spending is unclear.

Analysis by [Regen](#) suggests that investing in the grid at this scale could enable the UK to become a net energy exporter by 2040.<sup>35</sup>

Electricity grid annual total = > [£8.8bn](#) (combined public and private investment) over the parliament

## 12. Green skills

Academic and industry analysis points to significant skills gaps in many areas of the green economy, particularly [heat pump](#) installation and construction.<sup>36,37</sup> Although skills investment is not primarily CapEx, the availability of workers with the requisite skills is essential for successful rollout of other areas of investment. For example, the Further Education (FE) sector, which will play an important role in skills delivery, has been starved of funding over the past decade and a half, and recent increases in the FE budget will reverse only a fraction of the shortfall.<sup>38</sup>

The government's Net Zero Strategy includes an ambition to create 480,000 jobs across net zero industries by 2030. However, most of the existing training funds do not include an explicit element focused on the growth of the green economy so it is unclear how much would be allocated to green training schemes. IPPR has argued for annual spending of £1.06 billion, based on estimates of current government payments of £3,000 per apprentice and applied to the 3.2 million existing workers who need to be retrained.<sup>39,40</sup>

Green skills total annual total = [£1.06bn](#)

---

For more information, contact  
[Steve Coulter](#), head of economy  
[scoulter@green-alliance.org.uk](mailto:scoulter@green-alliance.org.uk)

## Endnotes

<sup>1</sup> Climate Change Committee, December 2020, 'The Sixth Carbon Budget. The UK's path to net zero'

<sup>2</sup> Green Alliance briefing, 2023, 'The economic case for the Labour Party's Green Prosperity Plan'

<sup>3</sup> Office for National Statistics, 'Balance sheet and capital stocks, preliminary estimates, UK 2021'

<sup>4</sup> Institute for Public Policy Research, August 2023, *Now is the time to confront UK's investment phobia*.

<sup>5</sup> National Institute Economic Review, No 224, May 2013, *Investing for prosperity: skills infrastructure and innovation*

<sup>6</sup> HM Treasury, 2022, *The growth plan*

<sup>7</sup> Institute for Fiscal Studies, August 2023, 'A look under the hood of Labour's investment plans'

- <sup>8</sup> Climate Change Committee Advisory Group on Health, 2020, *Sustainable Health Equity: Achieving a Net Zero UK*
- <sup>9</sup> CBI, 2023, *Going for green, the UK's net zero growth opportunity*
- <sup>10</sup> Green Alliance, 2023, Net Zero Policy Tracker
- <sup>11</sup> Green Alliance, 2022, *Closing the Green skills gap*
- <sup>12</sup> C Hepburn, et al, 2020, 'Will Covid-19 fiscal recovery packages accelerate or retard progress on climate change?', *Oxford review of economic policy*
- <sup>13</sup> HM Government, 2020, *The government response to the committee on climate change's 2020 progress report to parliament*
- <sup>14</sup> Green Alliance, 2023, *The cluster effect: why the UK needs a place-based green industrial strategy*
- <sup>15</sup> *Scottish Construction Now*, 18 May 2023, 'Sumitomo earmarks Nigg for £200m subsea cable factory'
- <sup>16</sup> Green Alliance, 2023, op cit
- <sup>17</sup> Green Alliance briefing, August 2023, 'Can renewable power help to tackle the UK's inflation problem?'
- <sup>18</sup> Green Alliance, 2023, *Securing our future: a programme for government*
- <sup>19</sup> Green Alliance, 2023, *A brighter future for UK steel*
- <sup>20</sup> Letter from the Environmental Services Association to George Eustice, 19 February 2020
- <sup>21</sup> Green Alliance briefing, May 2023, 'What is the best use of hydrogen in the UK?'
- <sup>22</sup> Department for Business, Energy and Industrial Strategy, 2021, 'Hydrogen production costs 2021'
- <sup>23</sup> Warm this Winter briefing, March 2023, 'Home retrofit and energy efficiency'
- <sup>24</sup> Green Alliance, 2023, Net Zero Policy Tracker, June 2023 update
- <sup>25</sup> *Housing Today*, 29 September 2021, 'Starmer pledges £6bn a-year "national mission" to upgrade homes'
- <sup>26</sup> SMMT, 27 June 2023, 'UK Auto calls for industrial strategy to secure £106 billion EV prize'
- <sup>27</sup> *Financial Times*, 18 July 2023, 'Tata Motors set to announce plans to build UK battery factory'
- <sup>28</sup> Green Alliance, 2023, *Powering up the UK battery industry*
- <sup>29</sup> SCAG, 2022, 'Mobility as a service: feasibility white paper'
- <sup>30</sup> Network Rail, July 2020, 'Traction decarbonisation network strategy'
- <sup>31</sup> IPPR, June 2023, *A smooth ride: electric buses and the route to a fairer transport system*
- <sup>32</sup> Department of Business, Energy and Industrial Strategy, January 2022, 'Carbon capture, usage and storage: an update on the business model for transport and storage'
- <sup>33</sup> HM Government, April 2023, 'CCUS Net zero investment roadmap'
- <sup>34</sup> National Grid ESO, July 2020, *Holistic Network Design*
- <sup>35</sup> Regen, 6 October 2022, 'A net exporter of energy by 2040?'
- <sup>36</sup> Green Alliance and Overseas Development Institute, 2023, *Decarbonising the UK's building stock: can immigration policy help solve workforce challenges?*
- <sup>37</sup> Construction Industry Training Board, 2020, *Building skills for net zero*
- <sup>38</sup> IFS, 2022, *Annual report on education spending in England: 2022*
- <sup>39</sup> IPPR, 2021, *Fairness and opportunity: A people-powered plan for the green transition. The final report of the environmental justice commission*
- <sup>40</sup> London School of Economics, Centre for Economic Performance and Grantham Institute, 2020, *Strategy, investment and policy for a strong and sustainable recovery: An action plan*