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Ranking G7 Green Recovery Plans and Jobs

**Can the UK boost its climate action and
green job creation in line with its G7
peers?**

Summary

This report ranks G7 countries' green recovery and job creation plans. It shows how the UK is lagging behind its G7 peers, and the potential to do much more to expand green jobs and accelerate climate action.¹

The TUC's ranking of all G7 countries' green recovery and jobs investments shows that the UK comes sixth. Only Japan scores worse per person.

The UK's green recovery plans remain only a tiny fraction of that in other G7 countries, despite the government's flagship Ten Point Plan for a Green Industrial Revolution which purports to support the UK's climate targets and establish UK world leadership in some areas of green technology. Scaled by population, the UK green investment plans are only 26% of France's, 21% of Canada, 13% of Italy's and 6% of the USA's. (Table 2)

This means that the UK Prime Minister would need five Ten Point Plans to match Prime Minister Trudeau in Canada, eight Ten Point Plans to match Prime Minister Draghi in Italy, and sixteen Ten Point Plans to match President Biden's in the US. (Table 4)

While the UK Treasury is investing about £180 per person on green jobs and recovery, the USA is planning to allocate over £2,960 per person, Germany £595 per person, Canada £866 and Italy £1,389. (Table 2)

This ranking also reveals the potential for a far more ambitious climate plan - that would actually deliver the UK's climate targets, while creating many more quality green jobs.

TUC analysis estimates the existing UK green infrastructure investment could create 44,000 green jobs for ten years over the next decade.² If the UK government took advantage of the G7 moment to match Italian or US green recovery spending, it could expand green job creation tenfold or more, to 340,000 - 721,000 green jobs lasting across the next decade. (Table 5)

The green recovery offers the opportunity to strengthen UK industry and maintain competitive advantages by decarbonising existing high-carbon sectors and building up new clean industries. But the UK's weak green recovery investment risks domestic industries falling behind.

Per person, Germany is investing at least 70% more than the UK in transitioning to electric vehicles, while the USA plans to spend nine times more. The UK automotive sector employs

¹ For questions on content, please contact amarkovamminio@tuc.org.uk

² This is lower than the UK government's estimates that the Ten Point Plan could create 250,000 jobs by 2030. This is for two reasons. (1) Our estimate examines the number of jobs that would be created directly and indirectly by the public infrastructure investment (and leveraged private investment), not future additional jobs that could be created by launching a new industry - as these estimates vary heavily from industry to industry. (2) Our estimate is for 44,000 jobs - *each lasting ten years* - whereas the government estimate could include jobs lasting a shorter time.

180,000 people directly in manufacturing.³ A successful transition to producing electric vehicles is crucial for this workforce to have a long term future.

Restoring biodiversity and land has been a flagship theme of UK government national policy and stated ambition for UN negotiations. Both Canada and the UK are aiming to protect 30% of land and oceans by 2030. But while Canada has allocated £51 per person to spend on restoring ecosystems, the UK is investing only £1.20 per person.

The importance of green recovery spending

To create long term quality green jobs

The scale of public support for green infrastructure is key to creating good quality jobs as part of Covid recovery. Analysis produced by Dimitri Zenghelis for the Aldersgate Group showed the essential role of near-term public investments in delivering net job creation across the regions, targeted in particular at energy efficiency retrofits, natural improvement projects such as tree planting and wetland restoration, while rolling out networks of the future based on fast broadband and smart connectivity, electric vehicle charging infrastructure and expanding public transport connections to low-income regions.⁴

The TUC commissioned Transition Economics to identify the potential for shovel-ready green infrastructure projects, finding that an £85 billion programme of public investment could create 1.24 million jobs.⁵ A report produced by the We Mean Business coalition and Cambridge Econometrics found that government recovery plans that focused on green infrastructure measures resulted in significantly greater jobs and GDP growth both in the long and short terms.⁶ Further analysis commissioned or conducted by IPPR⁷, the Local Government Association⁸ and the Grantham Research Institute⁹ made similar findings.

A successful green recovery can retool our workplaces, ensuring that UK industry is competitive in a net zero carbon future. Investing now to decarbonise our high carbon industries can kickstart the economy while creating long term future for domestic manufacturing.

³ <https://www.smmmt.co.uk/industry-topics/uk-automotive/>

⁴ <https://www.aldersgategroup.org.uk/asset/download/1684/Rebuilding%20to%20Last%20Report.pdf>

⁵ <https://transitioneconomics.net/uk-covid-recovery-infrastructure-jobs-tuc>

⁶ <https://www.wemeanbusinesscoalition.org/press-release/report-green-recovery-plans-boost-income-employment-and-gdp/>

⁷ <https://www.ippr.org/research/publications/faster-further-fairer>

⁸ <https://www.local.gov.uk/local-green-jobs-accelerating-sustainable-economic-recovery>

⁹ <https://cep.lse.ac.uk/pubs/download/cepcovid-19-010.pdf>

However, a lack of investment to decarbonise existing industry at this point threatens the medium and long term future for existing quality jobs in the UK's existing automotive, chemicals, steel and other sectors. And the lack of large-scale public investment to grow new zero carbon sectors and supply chains means the UK is not creating the significant numbers of quality jobs in renewables, clean manufacturing, nature restoration, zero carbon transport or energy efficiency that we need to see.

Young people face an unemployment crisis due to the Covid pandemic, with 13.3% of 16-24 year-olds unemployed.¹⁰ The Kickstart job creation scheme has been slow to deliver, and the government's flagship programme to create green jobs - the Green Homes Grant - was downsized.¹¹

The green economy is central to our long term prosperity. The UK's G7 peers recognise that investing public funds at scale as clean technology is developed and rolled out creates a competitive advantage, encouraging further investment - while the UK risks being left behind.

For addressing the climate crisis

The Committee on Climate Change's (CCC) Sixth Carbon Budget made clear that the bulk of emissions reduction needs to happen this decade by 2030.¹² It calls for large-scale infrastructure improvements, with low-carbon investment scaling up to average £50 billion per year.¹³ The CCC also advised government that Covid Recovery spending should prioritise¹⁴

- Buildings retrofits and shifting to low-carbon heating systems
- Nature restoration and tree planting to benefit the climate, biodiversity and flood prevention
- Strengthening energy networks, including reinforcing the electricity grids, rolling out electric vehicle charge points, expanding hydrogen to decarbonise domestic manufacturing
- Expanding broadband and 5G alongside walking and cycling infrastructure
- Transitioning to a circular economy, boosting both recycling and reuse rates.

The UK has strengthened its climate targets¹⁵ - but is not implementing policies to actually meet these targets. It is failing to put the investment on the table to back up its targets.

¹⁰ <https://www.bbc.co.uk/news/business-52660591>

¹¹ <https://www.tuc.org.uk/news/green-homes-grant-cut-hit-north-and-midlands-hardest>

¹² <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

¹³ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

¹⁴ <https://www.theccc.org.uk/2020/06/25/covid-19-can-be-an-historic-turning-point-in-tackling-the-global-climate-crisis/>

¹⁵ <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

Comparing green infrastructure investment in G7 countries

In absolute terms, the UK's Green Recovery plans, largely composed of the investments announced in the government's £12 billion Ten Point Plan for a Green Industrial Revolution¹⁶, lag far behind those of all other G7 countries except Japan - as demonstrated in Table 1. This puts the UK's £12 billion into a helpful perspective - compared to green recovery investment plans of £33 billion in Canada, £84 billion in Italy and £972 billion in the USA.

Canada's Federal Budget, announced in April 2021, included a Recovery Plan for Jobs, Growth and Resilience¹⁷ with a heavy emphasis on climate-related spending.¹⁸ Italy's national recovery plan was also launched in April 2021, and is the largest in the European Union at £191 billion¹⁹, with more than half allocated to the green transition. Most of France and Germany's green jobs and recovery measures were already announced in the spring and summer of 2020²⁰, but have been increased significantly with additional funds from 'Next Generation EU', the EU's primary instrument for COVID recovery.²¹ President Biden laid out his proposal for an American Jobs Plan focused on expanding green infrastructure, alongside strengthening workers' rights and increasing domestic manufacturing.²² Japan's £530bn stimulus package, announced in December 2020, includes a £13.6bn fund to support climate targets.²³

¹⁶ <https://www.gov.uk/government/news/pm-outlines-his-ten-point-plan-for-a-green-industrial-revolution-for-250000-jobs>

¹⁷ <https://www.budget.gc.ca/2021/home-accueil-en.html>

¹⁸ <https://www.greenpeace.org/canada/en/story/47431/2021-federal-budget-analysis-how-just-and-green-will-the-covid-recovery-be/>

<https://www.greenpeace.org/canada/en/story/47431/2021-federal-budget-analysis-how-just-and-green-will-the-covid-recovery-be/>

¹⁹ €222 billion, converted at 1 GBP = 1.16 EURO

<https://www.politico.eu/article/italy-italian-prime-minister-mario-draghi-recovery-plan/>

²⁰ <https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions>

²¹ <https://www.bruegel.org/2021/04/setting-europes-economic-recovery-in-motion-a-first-look-at-national-plans/>

²² <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>

²³ <https://www.bbc.co.uk/news/business-55226200>

Table 1: G7 Ranked by total of green jobs and recovery spending

Table 1: Total volume of public green infrastructure investment (£GBP)

Country	Total Investment (£ billion)
USA	971.75
Italy	83.87
Germany	49.39
France	47.70
Canada	32.55
Japan	13.62
UK	12.13

Different G7 countries have varying populations and economy sizes, creating a limitation on the usefulness of comparing the absolute investment values. This analysis therefore scales the green recovery investment by both population and by GDP. The following two tables rank G7 countries by the level of green recovery spending per person (Table 2) and as a percentage of each country's GDP (Table 3).

The UK ranks 6th on both comparisons. While the USA is investing over £2,960 per person in green recovery job creation programmes like public transport, electric vehicles and energy efficiency retrofits, the UK is barely investing £180 per person. Germany's per person investment is £595, Canada's £866 and Italy's £1,389.

Table 2: G7 countries ranked by level of green jobs and recovery investment per person

Table 2: Level of green infrastructure investment per person (£GBP)

Country	Investment Level per person (£ per person)	UK % of other G7 green recovery plans
USA	2,961	6.1%
Italy	1,389	13.1%
Canada	866	21.0%
France	711	25.6%
Germany	595	30.6%
UK	182	100.0%
Japan	108	168.7%

Table 3: G7 countries ranked by level of green job creation recovery spending, scaled by GDP

Table 3: Level of green infrastructure investment, by GBP million of GDP

Country	Green infrastructure investment level as % of GDP
USA	6.39%
Italy	5.91%
Canada	2.64%
France	2.48%
Germany	1.80%
UK	0.60%
Japan	0.38%

Scaling up ambition: Jobs and investment if the UK matches other G7 countries

If the UK scaled up its green jobs recovery investment to match its G7 peers's per person green recovery spend, this would kickstart the UK economy, build more competitive domestic industries and create hundreds of thousands of green jobs.

Table 4 shows how scaling up to match France would mean the UK would benefit from the equivalent of not one, but four of the existing Ten Point Plans. Taking a lead from Italy, the UK would benefit from ten Ten Point Plans. And scaling up in line with the climate components of the American Jobs Plan would be equivalent to deploying 16 Ten Point Plans.

The level of green recovery investment has large scale ramifications for job creation. Increasing the UK's climate ambition and spend in line with France's green recovery would create four times the current projected jobs from the UK's Ten Point Plan - from 44,000²⁴ to 173,000 green jobs lasting ten years each. The UK matching the Italian level of per person green recovery spend could create 340,000 green jobs, while matching the US green recovery spend level could create 720,000 jobs over ten years in the UK.

Table 4: Potential UK investment into green infrastructure, if UK government matched green recovery spend per person from other G7 countries

Table 4: Public Green Infrastructure Investment if UK matches other G7 levels

	Investment levels (£ per person)	Projected investment (£ million)	Equivalent to how many UK Ten Point Plans?
USA level	2,961	197,341	16
Italian level	1,389	92,546	8
Canadian level	866	57,704	5
French level	711	47,384	4
UK level	182	12,125	1

²⁴ This is lower than the UK government's estimates that the Ten Point Plan could create 250,000 jobs by 2030. This is for two reasons. (1) Our estimate examines the number of jobs that would be created directly and indirectly by the public infrastructure investment (and leveraged private investment), not future additional jobs that could be created by launching a new industry - as these estimates vary heavily from industry to industry. (2) Our estimate is for 44,000 jobs - **each lasting ten years** - whereas the government estimate could include jobs lasting a shorter time.

Table 5: Potential green job creation in the UK, if the UK government matched green investment levels from other G7 countries

Table 5: Potential Green Jobs if UK matches other G7 investment levels

Projection of jobs created over ten years	
USA level	721,345
Italian level	338,286
Canadian level	210,926
French level	173,203
UK level	44,321

Comparing the UK's sectoral plans to climate leadership in other G7 countries

Accelerating the shift to Electric Vehicles: Automotive

The UK's Ten Point Plan includes £2.8 billion to shift towards electric vehicles - including up to £1 billion to support electrification and supply chains, £1.3 billion towards charging infrastructure, and £580 million in grants to reduce the cost of electric vehicle purchases.²⁵

This compares to the US plan to establish \$174 billion (£123 billion) in grant and incentive programs for state and local governments and the private sector to build a national network of 500,000 electric-vehicle chargers by 2030.²⁶ When scaled down to the UK population, this is still over £25 billion - 9 times UK investments into electric vehicles.

Germany is investing at least \$8.4 billion (£6 billion) into retooling car plants to make electric vehicles, into charging infrastructure, and grants for new electric vehicles²⁷. Even when scaled down to the UK population, this is equivalent to £4.8 billion - 70% more than the UK government has committed to invest.

The Canadian and Ontario governments invested CAD\$590 million into Ford's Oakville assembly plant, in a deal negotiated by Ford and trade union Unifor in autumn 2020.²⁸ The trade union pushed for retooling following Ford's announcement that it would cease production of its Ford Edge and Lincoln Nautilus models at the plant.²⁹ Union negotiators secured financing from both Ford and the federal and provincial governments. The upgrade will enable the factory to switch to producing electric vehicles by 2025, aiming to assemble five different models onsite, alongside batteries to be used in the cars.³⁰ The Oakville plant employs about 3,400 workers. In a release, the federal government announced the plan would secure 5,400 jobs across the company's Canadian work force and supply chain.³¹

²⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf

²⁶ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>

²⁷ <https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions>

²⁸ <https://chargedevs.com/newswire/canadian-and-ontarian-governments-invest-590-million-to-retool-ford-plant-for-ev-production/>

²⁹ <https://fordauthority.com/2020/09/unifor-selects-ford-as-its-pattern-agreement-target-in-negotiations/>

³⁰ <https://fordauthority.com/2020/09/unifor-president-shares-timeline-for-ev-retooling-at-ford-oakville-assembly-plant/>

³¹ <https://www.cbc.ca/news/business/ford-oakville-government-1.5754974>

Restoring our Land and Nature

Canada allocated CAD\$3.3 billion in its March 2021 Budget for the protection of oceans, lands and freshwater to help achieve its target of protecting 25% of Canada's ecosystems by 2025³², including CAD\$200 million to build natural infrastructure like parks, green spaces, ravines, waterfronts, and wetlands.³³

In comparison, the UK's section on "Protecting our Natural Environment" within the Ten Point Plan increased the existing support for nature projects through the Green Recovery Challenge Fund from £40 million to £80 million.³⁴

While Canada is spending £51 per person on nature restoration as part of its Green Recovery, the UK had only allocated £1.20 per person.

³² <https://www.natureunited.ca/newsroom/2021-federal-budget-climate-change-natural-solutions/>

³³ <https://www.budget.gc.ca/2021/home-accueil-en.html>

³⁴

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf

Conclusions: The potential to accelerate

The UK Government has committed to accelerating climate targets in line with the expert advice from the Committee on Climate Change, but there is no corresponding ambition to invest in decarbonisation to meet the targets. If the Government continues its current course of under-funding climate action, we will fail to create the quality green jobs we need, the UK will lose out on building domestic competitive advantage in industries like tidal stream, hydrogen, electric vehicles and clean steel, and this government will forfeit its claims to climate leadership while missing its own climate targets.

The G7 provides the opportunity for the UK to commit to catching up with its G7 peers on green recovery and job creation investment.

Seizing the G7 opportunity by allocating £85 billion for emergency green infrastructure would move the UK up into 3rd position in the G7 league table and:

- Demonstrate real climate leadership
- Create 1.24 million quality green jobs in the immediate term, and retooling and decarbonising workplaces to defend existing jobs

APPENDIX - SOURCES FOR G7 GREEN RECOVERY INVESTMENT PLANS

UK:

- £12 billion Ten Point Plan.³⁵
- Plus additional new funding announced in Budget March 2021 listed on Carbon Brief's Green Recovery Tracker.³⁶

USA:

- Green components within the American Jobs Plan announced on March 31st 2021.³⁷

GERMANY:

- Green recovery measures announced in spring 2020.³⁸
- Additional €11.26 billion 'Climate policy & energy transition' components from German national plan for Next Generation EU pandemic recovery instrument.³⁹

FRANCE:

- Green recovery measures announced in spring 2020.⁴⁰
- Additional components on energy retrofitting, environment and biodiversity, green infrastructure and mobility, and green energy and technologies, from French national plan for Next Generation EU pandemic recovery instrument.⁴¹

³⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf

³⁶ <https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions>

³⁷ <https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions>

³⁸ <https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions>

³⁹ <https://www.bruegel.org/2021/04/setting-europes-economic-recovery-in-motion-a-first-look-at-national-plans/>

⁴⁰ <https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions>

⁴¹ <https://www.bruegel.org/2021/04/setting-europes-economic-recovery-in-motion-a-first-look-at-national-plans/>

CANADA:

- Canada's April 2021 Federal Budget included a Recovery Plan for Jobs, Growth and Resilience⁴² with a heavy emphasis on climate spending.⁴³
- Additional green recovery investment include the federal government investment into electrification of Ford's Oakville plant.⁴⁴

ITALY:

- Italy's national recovery plan has allocated more than half to the green transition, for digitalisation, green recovery and ecological transition and infrastructure for social mobility.⁴⁵

JAPAN:

- Japan's £530bn stimulus package, announced in December 2020, includes a £13.6bn fund to support climate targets.⁴⁶

⁴² <https://www.budget.gc.ca/2021/home-accueil-en.html>

⁴³ <https://www.greenpeace.org/canada/en/story/47431/2021-federal-budget-analysis-how-just-and-green-will-the-covid-recovery-be/>

⁴⁴ <https://www.cbc.ca/news/business/ford-oakville-government-1.5754974>

⁴⁵ <https://www.bruegel.org/2021/04/setting-europes-economic-recovery-in-motion-a-first-look-at-national-plans/>

⁴⁶ <https://www.bbc.co.uk/news/business-55226200>