Social housing rooftop solar: The economic impacts of nationwide solar PV rollout

A Cebr report for the

Green Britain Foundation

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Authorship and acknowledgements

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This research was commissioned by the Green Britain Foundation, a UK-based charity established in 2012 by philanthropist, environmentalist and advocate for a sustainable Britain, Dale Vince. The Green Britain Foundation runs and supports a diverse range of initiatives, from sustainable education and sport to land and marine conservation and animal protection, all aimed at empowering people to live more sustainably. More information is [available at this website]().

London, September 2026

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Executive summary

The Centre for Economics and Business Research (Cebr) is pleased to present Green Britain Foundation (GBF) with a comprehensive assessment of the economic impacts associated with a national rollout of rooftop Solar photovoltaic (PV) panels across UK social housing stock.

Full economic contributions associated with installing these solar panels were calculated for both a technical scenario, covering the 1.8 million social homes assessed as suitable for installation, and an unconstrained scenario covering all 5.0 million social homes that do not already have solar PV. Each was modelled over both a five-year and a ten-year delivery horizon using Cebr's economic impact framework. Even the technical scenario would more than double the number of domestic solar PV systems installed across the UK.

Table 1: Cost and aggregate impacts produced from the rollout of solar PV across both scenarios in each timeframe (£m, 2026 prices, present value)

(£m, 2026 prices, PV)	Cost	Output	GVA	COE	FTE job-years
Technical 5-year rollout	9,403	12,913	5,711	2,882	76,181
Technical 10-year rollout	8,424	11,568	5,117	2,582	76,181
Unconstrained 5-year rollout	26,105	35,849	15,857	8,002	211,511
Unconstrained 10-year rollout	23,387	32,117	14,206	7,169	211,511

Source: Cebr analysis

THE SCALE OF THE SOLAR PV ROLLOUT

- **1.8 million social homes could accommodate rooftop solar under the technical scenario**, which is more than doubling the current UK domestic stock of 1.74 million installations.
- **The technical rollout alone would deliver a 104.3% expansion in domestic solar PV installations**, alongside a 130.2% increase in installed domestic capacity.
- **The unconstrained scenario raises this to over 5.0 million installations**, covering every social home without solar today, a 288.6% expansion and 360.0% more capacity.
- **The two scenarios diverge in the eligibility criteria applied**, specifically the technical scenario's exclusion of flats and a share of social houses considered unsuitable; every later divergence in cost and impact follows from that one distinction.
- **Each scenario is modelled over both five-year and ten-year horizons**, running 2027 to 2032 and 2027 to 2037.
- **Installations are backloaded to reflect capacity build-up**, with the final three years of the ten-year rollout carrying 46.3% of total spending.

WHERE THE ROLLOUT WOULD LAND

- **London leads the unconstrained scenario with 812,000 installations, 16% of the UK total**, followed by Scotland (612,000, 12%) and the North West (573,000, 11%).
- **The North West leads the technical scenario with 235,000 homes, 13% of the total**, ahead of the South East (193,000, 10.6%) and the West Midlands (185,000, 10%).
- **The technical rollout is far more evenly spread across the regions**: the gap between the highest and lowest regional shares narrows from 6.5 times in the unconstrained scenario to 3.1 times.
- **Eight of the top 15 local authorities appear in both scenarios**; the seven unique to the unconstrained ranking sit in Greater London or the Glasgow City Region, where flats dominate the social housing stock.

DIRECT ECONOMIC IMPACTS OF INSTALLATION

- **Rollout across all eligible social homes would cost £8.4bn under the technical scenario and £23.4bn under the unconstrained**, over ten years in present value terms.
- **That expenditure converts into £5.2bn and £14.6bn of direct output respectively**, rising to £5.9bn and £16.3bn under five-year delivery.
- **Direct GVA totals £2.2bn under the technical scenario and £6.0bn under the unconstrained**, measuring the value added straight to UK GDP.
- **The programme directly supports either 33,210 or 92,210 FTE job-years**, an average of 3,320 and 9,220 full-time jobs a year.
- **Direct employment ramps steeply, from 660 FTE jobs in year one to 6,600 by 2036-37** in the technical scenario, and to over 18,000 in the unconstrained.
- **Between £1.2bn and £3.4bn flows directly to workers as compensation**, £1.6bn of the unconstrained total in the final three years alone.
- **London and the South East together generate £1.7bn of direct GVA, 27.8% of the UK total** in the unconstrained scenario, with London £1,013.9m and the South East £657.2m. Scotland (£688.8m) and the North West (£685.8m) follow, with the three northern English regions contributing £1.4bn between them.
- **Impacts are heavily backloaded, with 68.6% of unconstrained direct GVA falling in the second five years**, climbing from £147m in 2027-28 to almost £1.1bn by 2036-37;

AGGREGATE ECONOMIC IMPACTS OF INSTALLATION

- **Every £1 of direct output supports a further £1.21 across the wider economy**, £0.78 through the supply chain and £0.43 through employee spending.
- **Aggregate output reaches £11.6bn under the technical scenario and £32.2bn under the unconstrained**, averaging £3.2bn a year in the unconstrained case.
- **Aggregate GVA totals £5.1bn and £14.1bn on a multiplier of 2.36**, the highest multiplier of the key metrics.
- **£4.9bn of unconstrained aggregate GVA, 34.5% of the total, arises in the supply chain**, with a further £3.3bn (23.1%) generated through employee spending.
- **Total employment reaches 76,180 and 211,510 FTE job-years**; each direct job year supports a further 0.85 indirect and 0.45 induced.
- **Aggregate employment averages 21,150 FTE jobs a year in the unconstrained scenario**, growing 25.9% annually to 42,300 by 2036-37.
- **Aggregate employee compensation totals £7.2bn**, an average of £717m a year.

LOCAL ECONOMIC IMPACTS OF INSTALLATION

- **Glasgow, Birmingham, Leeds and Manchester lead the top ten local authorities by direct GVA**, with impacts concentrating in large urban areas.
- **The top 3, 10 and 20 local authorities account for 5.4%, 12.9% and 20.9% of UK-wide direct GVA**, meaningfully concentrated but not narrowly so.
- **Scottish and London authorities comprise the entire top ten measured against local population**, each exceeding 10,000 installations per 100,000 residents and rising to almost 20,000 in West Dunbartonshire.
- **Direct GVA in the unconstrained scenario would be worth just under £1 in every £1,000 of local economy GVA each year**, in the highest-ranked local authorities.
- **Lewisham tops the relative employment ranking**, where average annual direct FTE jobs supported would equal roughly 1 in every 800 local jobs in the unconstrained scenario.
- **The most deprived tenth of English local authorities captures £865m of direct GVA, 17.6% of the English total**, and the most deprived 30% capture £2.2bn, or 45.4%.
- **The decile of local authorities with the highest unemployment accounts for 14.1% of direct employment impacts**, 12,970 FTE job years, with the top three deciles accounting for [illegible]

FISCAL BENEFITS

- **Installation alone would generate £2,176.2m of tax revenue under a ten-year unconstrained rollout**, and £783.8m under the technical scenario.
- **Five-year delivery raises this to £2,429.1m and £874.9m**, as receipts arrive sooner.
- **VAT accounts for over half of installation tax revenue at £1,114m**, followed by national insurance (£492m), income tax (£367m) and corporation tax (£204m).
- **Exporting surplus generation to the grid adds £3,176.3m under the unconstrained scenario and £1,148.3m under the technical**, on a cumulative basis.
- **This income would continue beyond the construction period, at roughly £730m a year to the Exchequer from 2037** in the unconstrained scenario.
- **The fiscal return grows every year of the rollout** because export revenue scales with installed capacity, peaking only once the final homes are fitted.

HOUSEHOLD SAVINGS

- **Cumulative household savings total £3.5bn under the technical scenario and £9.6bn under the unconstrained**, over ten years, or £2.2bn and £6.2bn over five.
- **Each household saves £438.10 in present value under a ten-year rollout and £520.33 under a five-year**, identical in both scenarios.
- **Undiscounted, the saving per household is £617.99**, before the effect of discounting across the rollout period.
- **That is 25% to 30% of a household's current maximum annual energy bill**, against an average bill up £236, or 17%, in real terms since 2020.
- **Savings start on installation, not completion**, with some 101,000 homes saving £60.0m in total, or £597.01 each, by the end of 2027-28.
- **These savings recur beyond the construction timeline**, because generation continues at full capacity once installed.

1. Introduction

Cebr is pleased to present this report to the Green Britain Foundation, evaluating the potential impacts of a social housing rooftop solar programme nationwide. Two scenarios of potential solar PV installations across UK housing stock are analysed here, quantifying the economic and fiscal benefits generated by the programme, along with wider value delivered through household savings and potential government revenue.

This research revolves around two core scenarios. A technical scenario captured a deliverable, realistic scope of rooftop solar in which flats were excluded from the eligible pool of housing alongside a share of houses, based on prior research by GBF.[1] An unconstrained scenario was intended to reflect an illustrative outer bound or ceiling, rather than a projection or forecast of potential delivery. In this scenario all social homes which do not currently have solar PV were included within the scope of installation.

Cebr then robustly modelled the impact of these scenarios on the UK economy, capturing the economic activity supported by the installation of solar PV arrays across social housing stock. Impacts were modelled across four core indicators and three individual layers, supplemented by further quantification of tax revenues. The analysis is intended to serve as a demonstration of the economic impacts that could be realised were the UK to fulfil the full solar power potential of social housing stock. These impacts layer on top of wider gains of increased government revenue and reduction in household energy bills for people living in social homes.

This evidence base is particularly relevant and important given the wider context around UK energy costs. Energy bills climbed 17% in real terms between 2020 and April 2026 – equivalent to £236 for the average household – and the energy price cap is set to rise a further 4% from October.[2] UK Government counts almost 2.4m households in fuel poverty and 7.6m that spend more than 10% of post-housing income on energy bills.[3]

Throughout the report, the analysis solely focuses on specifically domestic rooftop solar PV arrays. From this point forward, references to this or shorthand such as solar PV, solar arrays, or rooftop solar is in reference to this specific type of solar panel system.

The remainder of this report is structured as follows:

- **Section 2** details the total solar PV installation potential among social homes across the UK, under both technical and unconstrained scenarios, in terms of the number of solar arrays and their distribution across regions and years;

1 GBF (2023) The rooftop revolution we need, available here

2 Resolution Foundation (2026) Power struggle, available here

3 UK Government (2026) Annual fuel poverty statistics in England, available here

- **Section 3** presents the direct economic impacts of solar PV installation, across the four core measures of output, GVA, employment and COE;
- **Section 4** provides the wider, aggregate economic impacts of solar PV installation, incorporating the indirect and induced impact layers;
- **Section 5** covers economic impacts at a hyper local level, comparing this with wider economic deprivation measures to understand how brownfield solar PV rollout could benefit disadvantaged communities;
- **Section 6** presents fiscal impacts, analysis around potential increased Exchequer revenue and reductions in household energy bills; and
- **Appendix 1** covers the full methodology employed to deliver this analysis.

2. Rooftop solar rollout potential across the UK's social housing

Forming the core foundation of Cebr's modelling, this section sets out the potential scale of social housing rooftop solar rollout across the UK's social housing stock. This scale is expressed as a potential number of social homes and therefore a corresponding number of domestic solar PV systems. Estimates of these numbers are rooted in official social housing stock data collected across all UK nations, disaggregated down to local authority level, driving granular analysis and breakdowns at local, regional and nationwide level.

Two distinct scenarios of social housing rooftop solar rollout were constructed for our modelling, through discussion with the Green Britain Foundation and review of available data and evidence. These scenarios dictate the volume of social homes and therefore rooftop solar systems installed, with both modelled over 5- and 10-year delivery periods. The two rooftop solar PV scenarios are as follows:

- **Technical scenario:** This scenario restricts programme scope to only social homes deemed suitable for solar PV installation, decided by three eligibility criteria. These criteria excluded all flats from the scope, applied a suitability ratio from prior GBF research to account for barriers like roof size, orientation and shade, and removed all social homes with existing rooftop solar PV systems.[4] This captures a tangible, realistic and deliverable scenario that aligns with available research on solar PV housing suitability.
- **Unconstrained scenario:** This scenario, by contrast, extends the scope of analysis to total UK social housing stock, only subtracting social homes with existing solar PV from this. It does not apply any other exclusion criteria. Hence, this includes almost all social houses and social flats. This demonstrates the absolute upper bound and ceiling of nationwide rooftop solar delivery rather than a projection or forecast, and reflects GBF preferences at this stage of the modelling.

2.1 Total social home solar PV installation potential

Under the technical scenario, we estimate that across the entire UK, over 1.8 million social homes could be suitable for solar PV installation. This volume of solar PV installations is greater than the total number of currently installed domestic solar PV arrays in the UK, which stood at 1.74 million as of July 2026.[5] This scenario would therefore constitute a

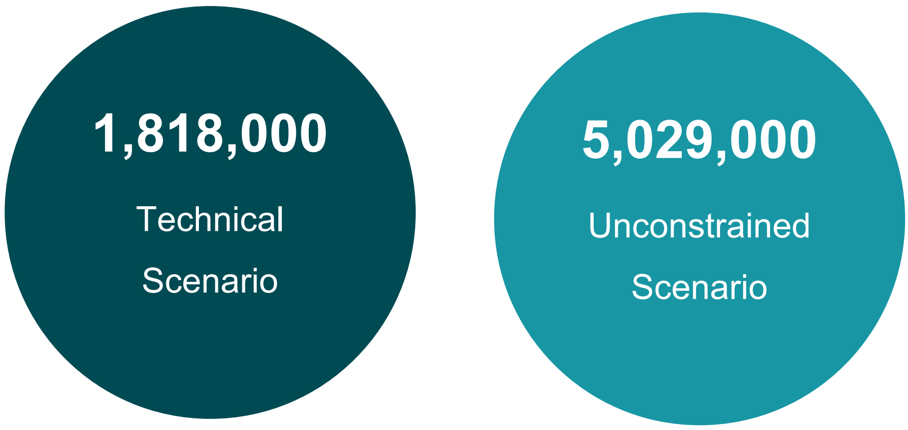
[4] GBF (2023) The rooftop revolution we need, available here

[5] DEZNZ (2026), Energy Trends: UK renewables – Solar photovoltaics deployment, available here

104.3% expansion in the number of solar PV installations, and a 130.2% increase in installed capacity in domestic solar PV.[6]

Under the unconstrained scenario, we estimate that if rooftop solar PV was rolled out across all social homes where it is not already installed, this would equate to more than 5.0 million total domestic solar PV installations. This scenario would therefore represent a 288.6% expansion in the number of solar PV installations, and a 360.0% increase in installed capacity in domestic solar PV.

Figure 1: The number of total solar PV installations (total social homes in scope) under both technical and unconstrained scenarios



Source: Cebr analysis

The significant difference between the two scenarios rests solely on the eligibility criteria applied and therefore the stark contrast in the scope and breadth of proposed solar PV rollout. All subsequent divergence between the scenarios (in terms of installation volumes, expenditure and economic impact) follows from this substantial core distinction.[7] Even under the technical scenario however, the proposed rooftop solar rollout would therefore significantly expand installed capacity of domestic solar PV and potential green energy generation.

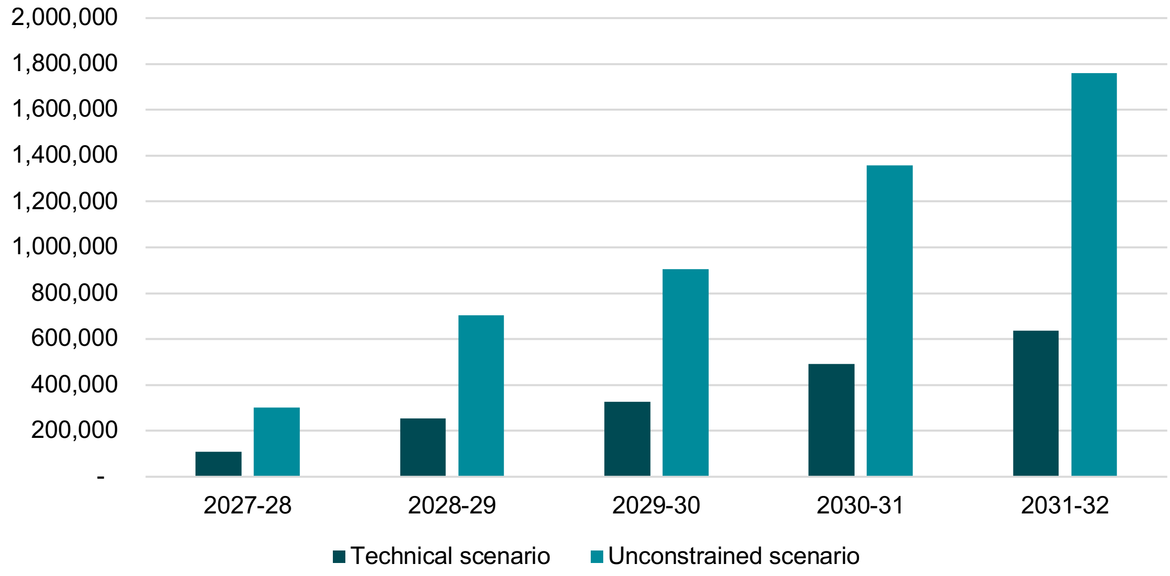
Economic analysis throughout this report presents impacts for both the technical and the unconstrained scenarios, and a five- versus ten-year delivery horizon in each. As set out in the methodology, the installation over this horizon is phased under a ramp-up assumption, back-loading the delivery of rooftop solar PV to account for the fact that capacity will take time to build up to the level required for a rollout of this scale. The precise temporal distribution is sourced from wider research. Figure 2 and Figure 3 below

[6] The total capacity figure from this proposed solar installation is from a modelling assumption that this rollout would install 5kW solar PV arrays. This is discussed further in the methodology.

[7] The differences between the technical and unconstrained scenarios are discussed in the methodology

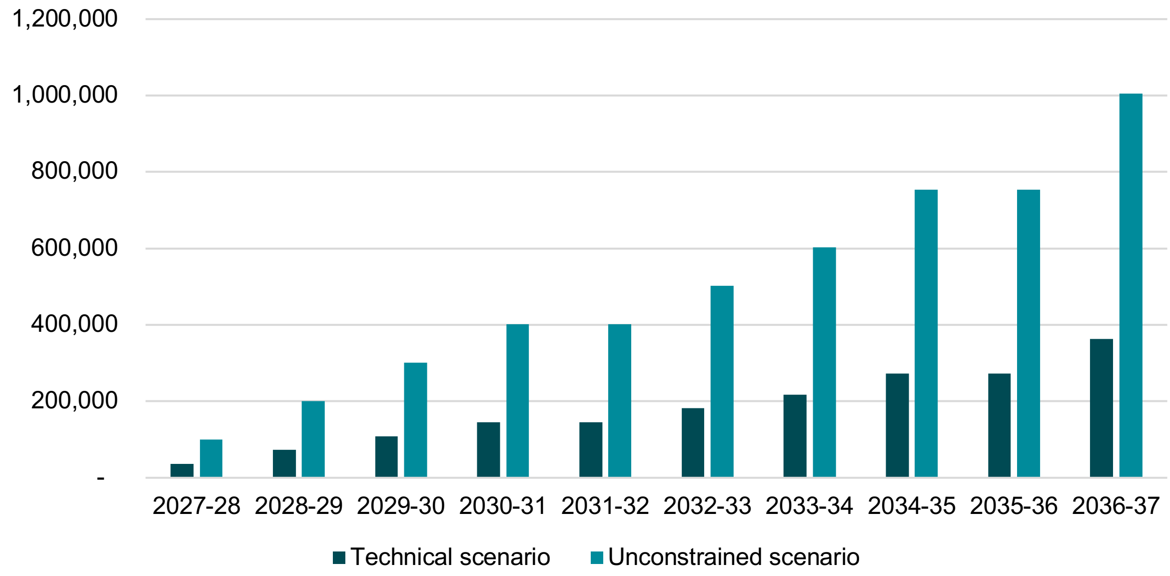
present the number of installations modelled in each year, over both timelines and scenarios.

Figure 2: Yearly number of potential social home rooftop solar PV installations, technical and unconstrained scenarios, 5-year rollout, 2027-2032



Source: Cebr analysis

Figure 3: Yearly number of potential social home rooftop solar PV installations, technical and unconstrained scenarios, 10-year rollout, 2027-2037

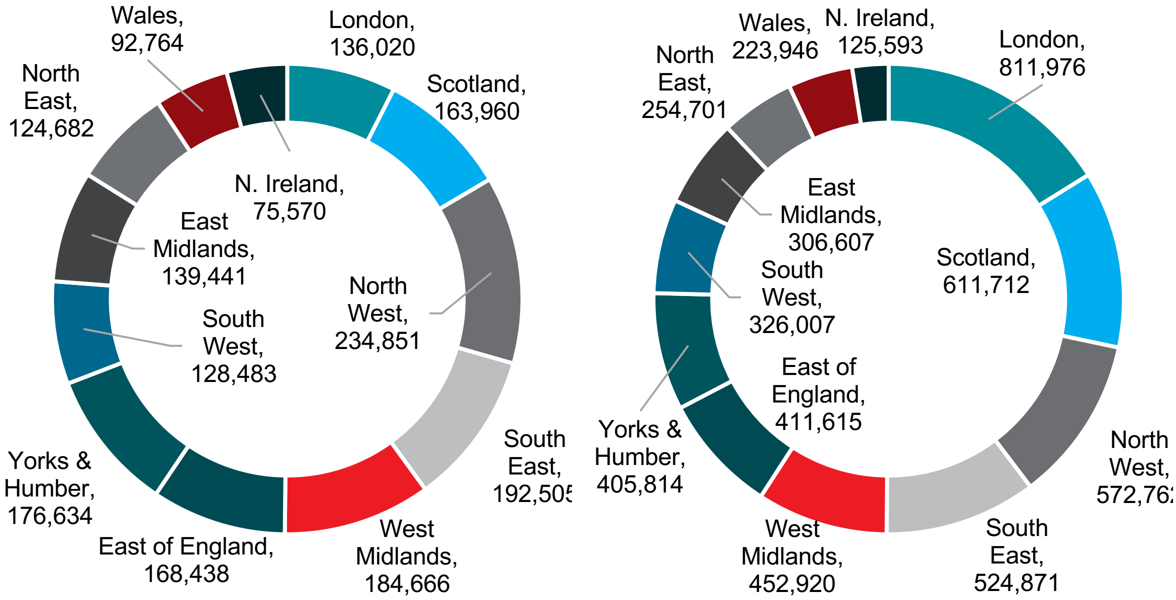


Source: Cebr analysis

2.2 Regional distribution of solar PV installation

While the scale of solar PV array installation differs substantially between the technical and unconstrained scenarios, there is also strong variation observed in the regional distribution of rooftop solar delivery. Figure 4 below displays the geographic makeup of rooftop solar installations, across the devolved nations and nine English regions in both scenarios.

Figure 4: Regional distribution of total potential solar PV installations in each scenario (left pie technical, right pie unconstrained)



Source: Cebr analysis

As the above charts show, under the unconstrained scenario, a small number of regions contain a significant share of the social homes estimated to be able to accommodate solar PV. In the unconstrained scenario, London hosts the largest for social housing rooftop solar PV, at 812,000 installations or 16% of the nationwide total. This is followed by Scotland (612,000, or 12%), and the North West (573,000, or 11%). These findings are largely unsurprising: potential rooftop solar is a direct function of social housing stock, concentrated in urban areas, as London, Scotland, and the North West all contain significant urban centres.

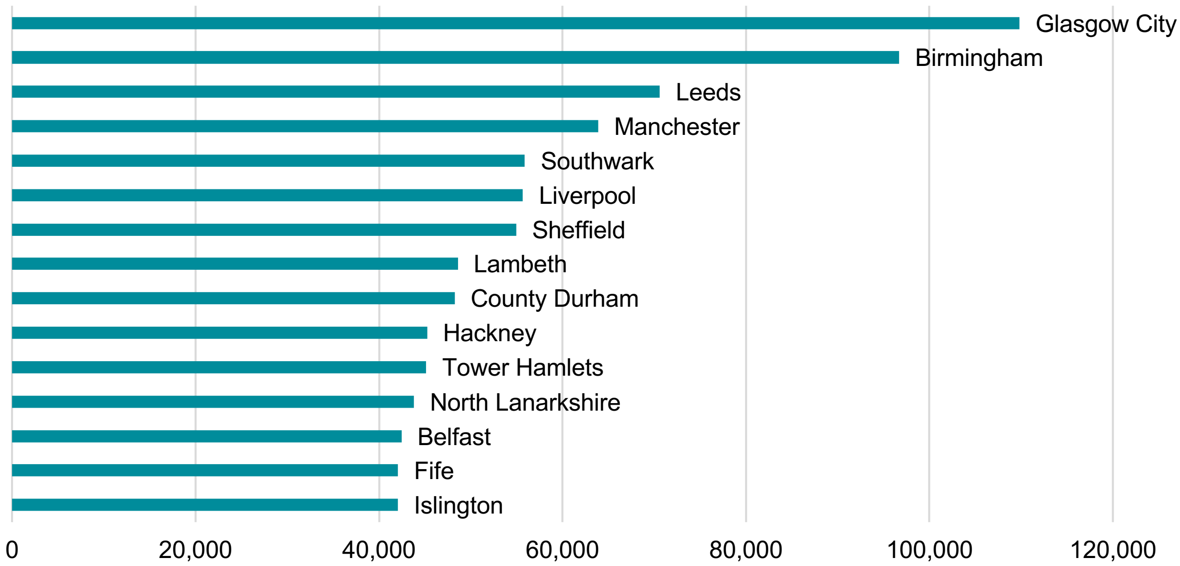
By contrast, in the technical scenario the distribution of eligible social homes and potential solar PV rollout is more balanced across the regions. For example, the strongest region by potential social housing rooftop solar rollout would host a number of installations 3.1 times that of the weakest region, while the equivalent gap between the largest and smallest regions measures 6.5 times in the unconstrained scenario. The technical scenario additionally diverges in the two regions with the highest shares of social homes which can accommodate solar PV, with the highest being the North West with 235,000 homes or 13% of the nationwide total, followed by the South East (193,000, 10.6%).

These differences are a consequence of the varied distribution of the type of social housing stock across different regions. Regions with significant urban concentrations, like London, or Glasgow in Scotland, have a higher share of social homes which are flats, compared to a region with fewer urban concentrations, such as Northern Ireland. Hence, the exclusion of flats as eligible for solar PV in the technical scenario disproportionately reduces the number of eligible social homes for regions with significant urban areas.

2.3 Local level distribution of solar PV installation

Set out previously, the granular, bottom-up nature of Cebr modelling allows us to capture social housing rooftop solar potential on a specific, local level. As with regions, the number of potential domestic solar PV arrays at a Local Authority (LA) level depends on the local distribution of suitable social homes. Figure 5 below shows the top 15 local authorities by potential solar PV installations in the unconstrained scenario, while Figure 6 sets out the equivalent list for the technical scenario.

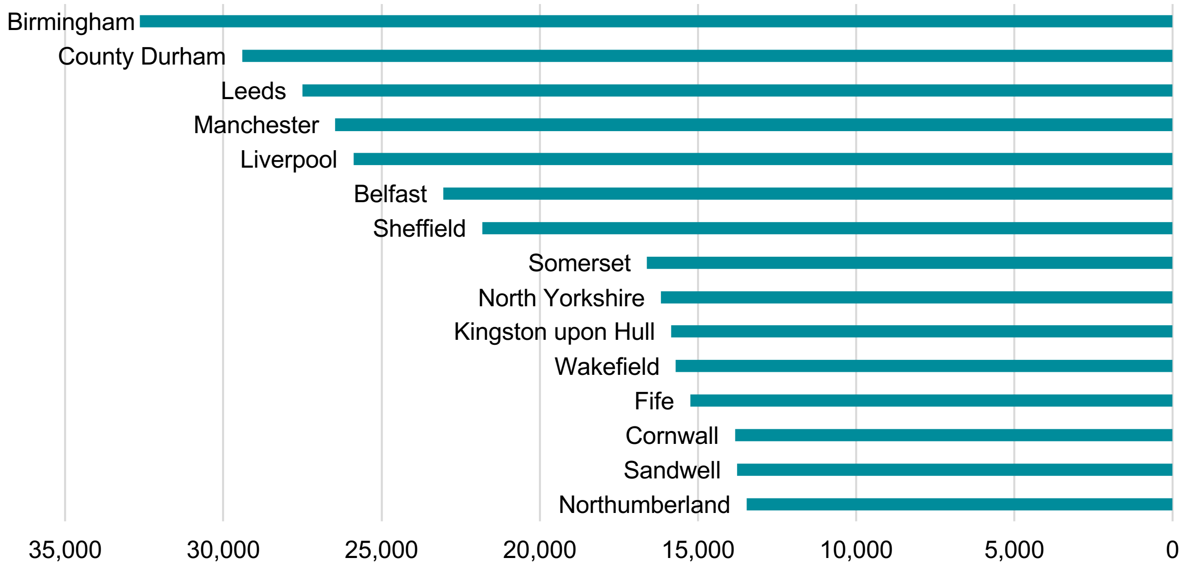
Figure 5: Top 15 local authorities with the most social homes eligible for solar PV installation, unconstrained scenario, 2026



Source: Cebr analysis

Both rankings are dominated by urban or suburban areas but with slight differences in composition across scenarios. Birmingham represents arguably the strongest LA overall, hosting the largest number of eligible social homes for rooftop solar PV (32,630) in the technical scenario, and the second largest number of potential installations under the unconstrained scenario (96,710). The significantly greater breadth of the unconstrained scenario is also reflected strongly at the granular, local authority level. Even the LA with the 15th highest number of eligible homes (Islington, 42,070) being higher than the LA with the most eligible homes under the technical scenario (Birmingham, 32,630).

Figure 6: Top 15 local authorities with the most social homes eligible for solar PV installation, technical scenario, 2026



Source: Cebr analysis

Across the two scenarios, the two lists share strong crossover of LAs, with eight of the 15 appearing in both. The differences are driven by the inclusion of flats within the unconstrained scenario, with all seven of the LAs in the top 15 not appearing in the technical scenario being part of either Greater London or Glasgow City Region, urban areas where a higher share of housing stock is flats.[8]

[8] In the unconstrained scenario, for six of the seven LAs that do not overlap with the technical scenario, over 80% of their social homes are estimated to be flats; the final LA, North Lanarkshire, also has a high proportion of flats, at 57%.

3. Direct economic impacts of social housing rooftop solar rollout

This section details the economic impacts generated directly across all four rooftop solar PV rollout scenarios set out in Section 2. Direct impacts here therefore reflect the economic activity supported by the installation programme of rooftop solar PV systems, modelled specifically according to social housing stock in individual local authorities throughout the UK, then aggregated to economy-wide figures. Economic impacts are captured through four core indicators of output, GVA, FTE employment, and employee compensation (COE).

Given the time horizon associated with this multi-year construction scenario and resulting economic impacts, future financial impacts are discounted to reflect the social time preference for money, in line with HMT guidance and best practice. Discounted impacts are presented as 'present value' (PV) estimates throughout our analysis from this section onwards. All monetary figures are presented in constant 2026 prices throughout. Non-financial employment impacts are not discounted, but given the multi-year nature of this analysis are provided as total 'job-years' estimates, where one FTE job year represents one FTE job sustained for one year.

3.1 Direct expenditure and output associated with rooftop solar PV rollout

The total breadth and potential for social housing rooftop solar (as presented in Section 2) was combined with modelled per-system installation costs to derive estimates of the total expenditure required to deliver this programme. Detailed further in the methodology, per-system installation costs were constructed using official DESNZ and MCS cost data, with regional granularity to reflect cost variation, and a technical bulk discount implemented based on empirical data from a London rooftop solar programme.

Expenditure estimates are presented in gross terms, inclusive of 5% VAT reflecting the planned removal of zero-rating in April 2027. However, if in the proposed scenario central government is both the funder and, via HMRC, the recipient of this VAT, the amount would constitute a transfer within the public sector rather than a resource cost to the wider economy. In this case net costs to the Exchequer would be slightly lower, exclusive of VAT.

Table 2 below presents total funding requirements, for the two differing rooftop solar scenarios and 5- versus 10-year rollout periods. Over the full 10-year delivery horizon, total expenditure required to install solar PV across all suitable social houses amounts to £8.4bn in the technical scenario, in present value terms. This increases almost three-fold to £23.4bn in the unconstrained scenario revolving around total social housing stock. Total expenditure estimates are slightly larger under the 5-year rollout, at £9.4bn and £26.1bn respectively. This reflects the present value adjustments within our calculations as the shorter time window limits discounting effects.

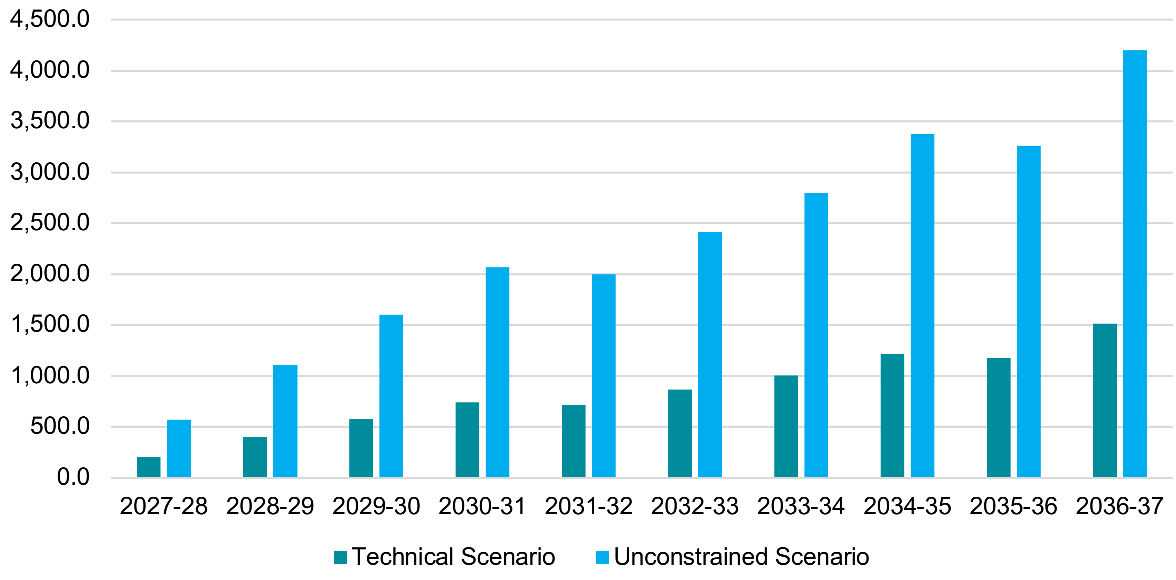
Table 2: Gross expenditure required across rooftop solar PV rollout scenarios, full programme total (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	9,402.5	8,423.7
Unconstrained	26,104.7	23,387.1

Source: Cebr analysis

Funding requirements are significantly lower when analysing the rooftop solar scenarios from an annual perspective, as Figure 7 below visualises the temporal distribution of programme expenditure over the 10-year delivery horizon for both scenarios. Average annual funding across the full decade measures £842m and £2.3bn for the technical and unconstrained scenarios respectively. Given the ramp-up temporal profile adopted within our modelling (set out in the methodology) expenditure peaks in the final year of 2036-37 in both scenarios, at £4.2bn in the unconstrained scenario. Annual funding requirement does not exceed £1bn until the seventh year in the technical scenarios, with the final three years accounting for just under half (46.3%) of total spending.

Figure 7: Annual breakdown of 10-year rooftop solar PV programme expenditure, technical and unconstrained scenarios, 2027-2037 (£m, 2026 prices, present values)



Source: Cebr analysis

Cebr's modelling then converted total required expenditure to tangible, robust estimates of the domestic economic output supported by the solar PV installation programme. This process involved three adjustments to exclude any relevant product taxes, strip out the import content on a specific cost component basis, and reassign any distribution or trading margins.

Across both scenarios and time horizons, social housing rooftop solar rollout would generate substantial economic impacts in the form of output. In present value terms, Cebr estimate the technical scenario would generate output totalling £5.2bn across a 10-year rollout period, increasing to £5.9bn under the shorter 5-year horizon due to weaker discounting effects. Expanding out the scope of rooftop solar to total social housing stock, installation in the unconstrained scenario would generate £16.3bn in output over five years or £14.6bn over ten years.

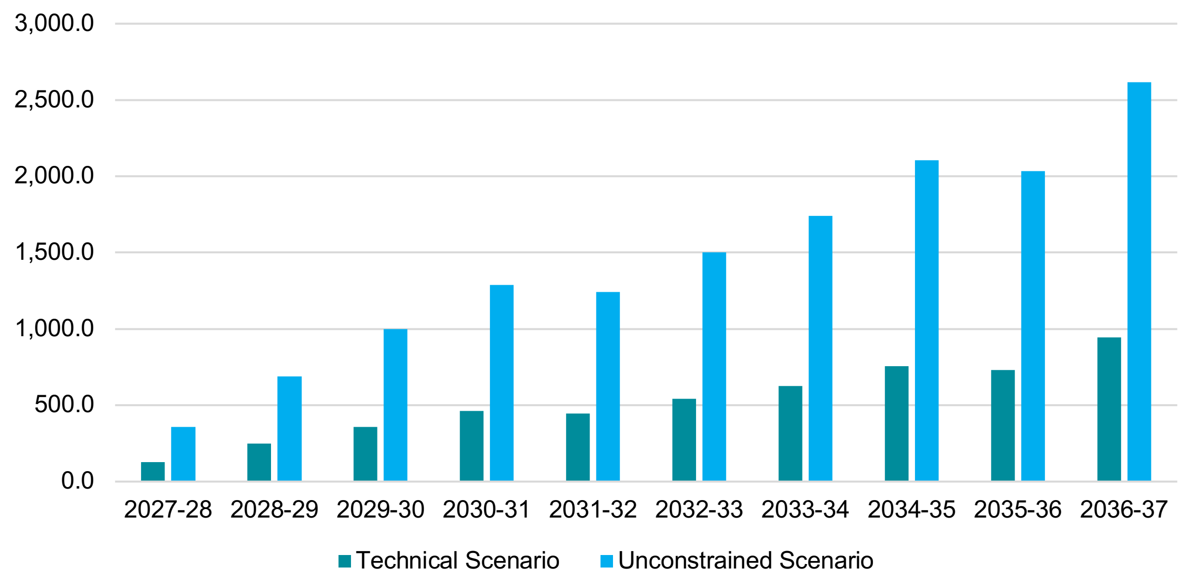
Table 3: Direct output generated across rooftop solar PV rollout scenarios, full programme total (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	5,859.2	5,249.2
Unconstrained	16,267.2	14,573.7

Source: Cebr analysis

Figure 8 illustrates the annual breakdown of direct output impacts, over the full 10-year time horizon for both the technical and unconstrained scenarios. Average annual output generated by solar PV installation measures £525m in the technical scenario that captures suitable social houses, increasing to £1.5bn per year when widening the scope to total UK housing stock. Again, annual output impacts gradually increase year-on-year throughout the rollout period in line with the phasing of installations. In the unconstrained scenario, direct output measures £357m in 2027-28, before growing at an average annual rate of 24.8% over the full 10-year horizon to measure £2.6bn by the final year of 2036-37.

Figure 8: Annual breakdown of direct output generated by 10-year rooftop solar PV programme, technical and unconstrained scenarios, 2027-2037 (£m, 2026 prices, present values)



Source: Cebr analysis

3.2 Direct GVA generated by rooftop solar PV rollout

GVA impacts exclude the value of intermediate inputs from total output, isolating the pure value added to the UK economy by social housing rooftop solar, equivalent to contribution to GDP. In present value terms, Cebr estimate the technical scenario of solar PV installation would generate £2.2bn in direct GVA throughout the UK over the 10-year rollout period, increasing to £2.4bn in present value terms under a more compressed 5-year delivery period. Direct GVA contributions increase by more than 2.5 times when widening the scope in the unconstrained scenario. Installation of rooftop solar PV across the entire UK social housing stock would generate over £6bn of direct GVA in present value terms over the 10-year rollout, increasing to £6.7bn under a 5-year rollout.

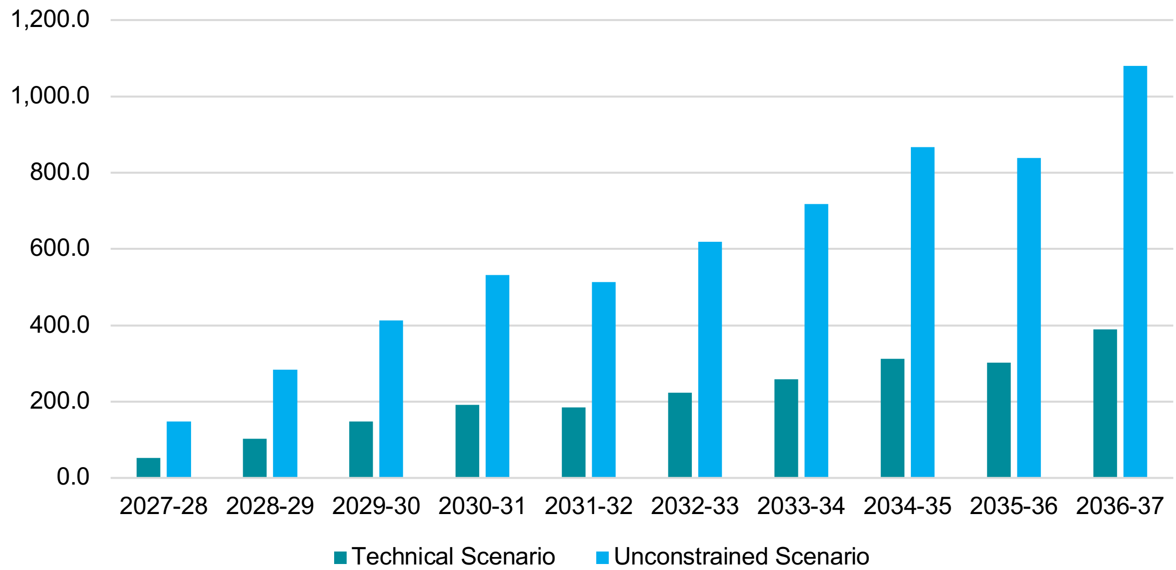
Table 4: Direct GVA generated across rooftop solar PV rollout scenarios, full programme total (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	2,417.3	2,165.7
Unconstrained	6,711.4	6,012.7

Source: Cebr analysis

Year-by-year breakdowns of impacts again reveal a strong growth in direct GVA contributions over the proposed 10-year time horizon for delivery. In present value terms, the average annual contribution of the solar rollout programme measures £217m in direct GVA when just considering suitable social houses in the technical scenario. This increases to £601m of direct GVA supported by installation of rooftop solar across the total social housing stock. In this unconstrained scenario, direct GVA impacts increase from £147m in 2027-28 to just shy of £1.1bn in 2036-37, as over two-thirds (68.6%) of direct GVA is generated in the latter half (five years) of the proposed rollout period. Figure 9 illustrates increasing GVA in both scenarios.

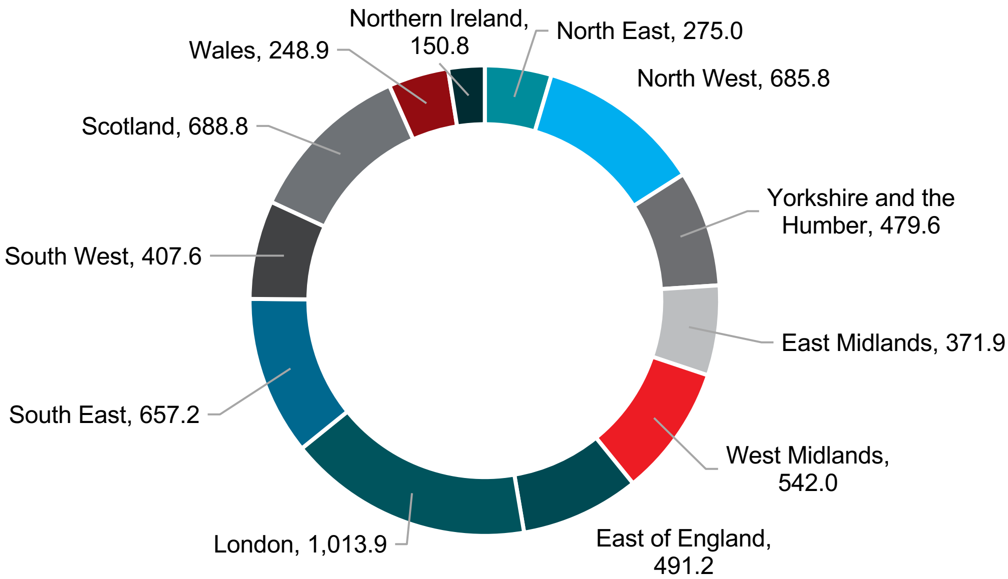
Figure 9: Annual breakdown of direct GVA generated by 10-year rooftop solar PV programme, technical and unconstrained scenarios, 2027-2037 (£m, 2026 prices, present values)



Source: Cebr analysis

The granular, geographic modelling framework adopted enables full breakdowns to be constructed across all UK regions and nations. Regional breakdowns of direct GVA generated by solar PV installation in the unconstrained scenario are presented in Figure 10 below, in present value terms across the full 10-year delivery period. In line with the distribution of social housing, direct GVA is concentrated in London and the South East, in which rooftop solar PV installation directly generates £1.7bn in GVA collectively, over one quarter (27.8%) of the nationwide total. Strong GVA contributions are also delivered in the North West, North East, and Yorkshire and Humber at a total of £1.4bn, likely driven by the volume of social housing in urban centres across the northern regions. Social housing solar PV in Scotland alone also generates £690m in direct GVA over the 10-year rollout, more than one tenth of the UK total.

Figure 10: Regional breakdown of direct GVA generated by rooftop solar PV programme, 10-year rollout unconstrained scenario (£m, 2026 prices, present values)

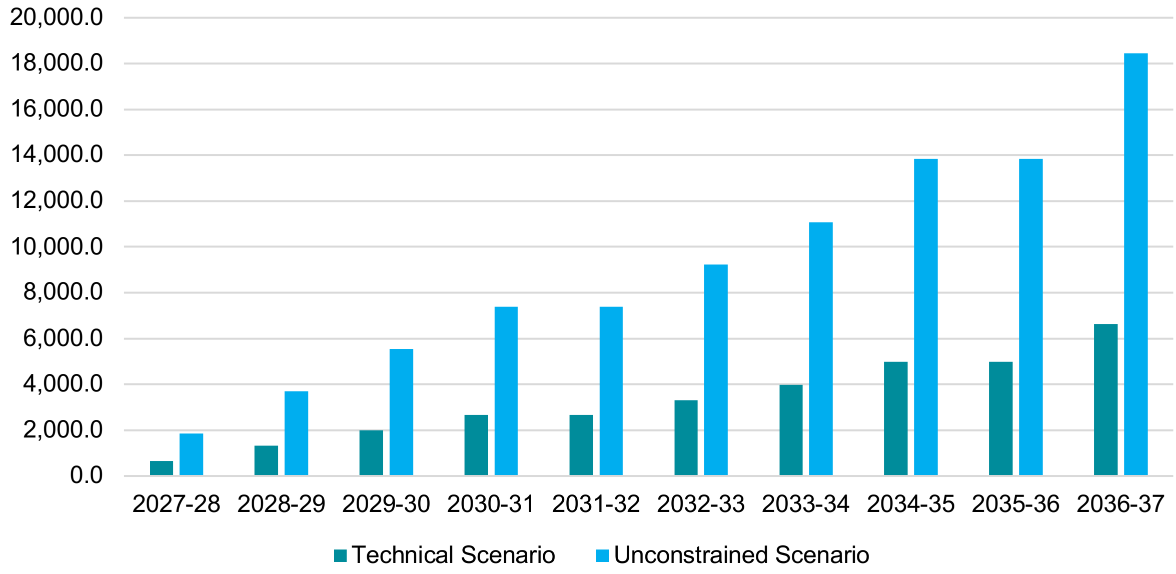


Source: Cebr analysis

3.3 Direct employment supported by rooftop solar PV rollout

In tandem with GVA contributions, social housing rooftop solar would also represent a significant stimulus to the UK economy in terms of employment supported. Across the full installation programme, even the technical scenario directly supports a total of 33,210 full-time equivalent (FTE) job years. This equates to an average, of 3,320 FTE jobs directly supported annually over a 10-year delivery horizon. When broadening solar PV installation to all UK social homes, a total of 92,210 FTE job years are directly supported by this economic activity, an average of 9,220 per year across the 10-year rollout.

Figure 11: Annual breakdown of direct employment supported by 10-year rooftop solar PV programme, technical and unconstrained scenarios, 2027-2037 (FTE jobs)

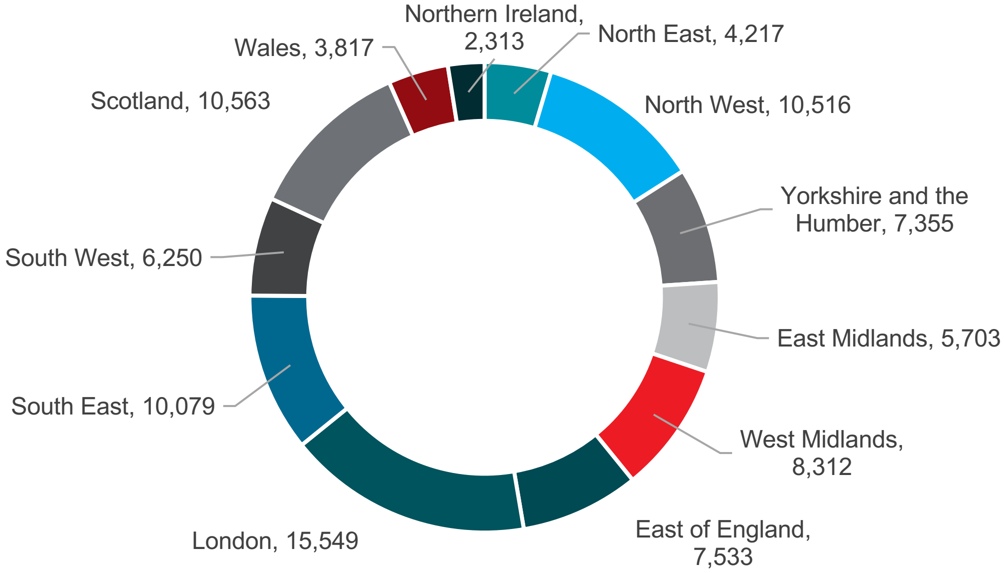


Source: Cebr analysis

Figure 11 illustrates the annual breakdown of direct employment impacts in further detail and the significant ramp up of FTE job years supported throughout the delivery horizon. In the technical scenario, 660 FTE jobs are supported in the first year, quadrupling to 2,660 FTE jobs by the fifth year or midpoint of the programme, and more than doubling to 6,600 FTE jobs by the final year in 2036-37. The equivalent, final-year direct employment impacts in the broader, unconstrained scenario measure over 18,000 FTE jobs.

Figure 12 visualises the geographic breakdown of employment impacts directly generated by social housing rooftop solar. This is presented as total FTE job years by region supported by the unconstrained solar PV installation scenario, covering total UK social housing stock. Of the total 92,210 FTE job years supported nationwide, over 22,000 are generated in the north of England (North East, North West and Yorkshire and the Humber), in addition to more than 14,000 FTE job years directly supported in the East and West Midlands. London and the South East again prove a direct employment hotspot, while the devolved nations constitute almost one fifth (18.1%) of the nationwide total, driven by strong FTE impacts in Scotland.

Figure 12: Regional breakdown of direct employment supported by rooftop solar PV programme, 10-year rollout unconstrained scenario (FTE jobs)



Source: Cebr analysis

3.4 Direct compensation associated with solar PV installation

Building upon output, GVA and FTE employment, employee compensation captures an important further angle of impact in terms of the value that flows to workers, and represents a core component of GVA. Table 5 below sets out direct employee compensation across both scenarios and rollout period. In the technical installation scenario focussing purely on suitable social houses, solar PV installation would support £1.2bn in direct compensation for the workers involved over the whole 10-year delivery, increasing to £1.4bn when rollout is compressed to five years. Direct employee compensation increases almost threefold in the unconstrained scenario, to £3.8bn in present value terms across 5-year delivery.

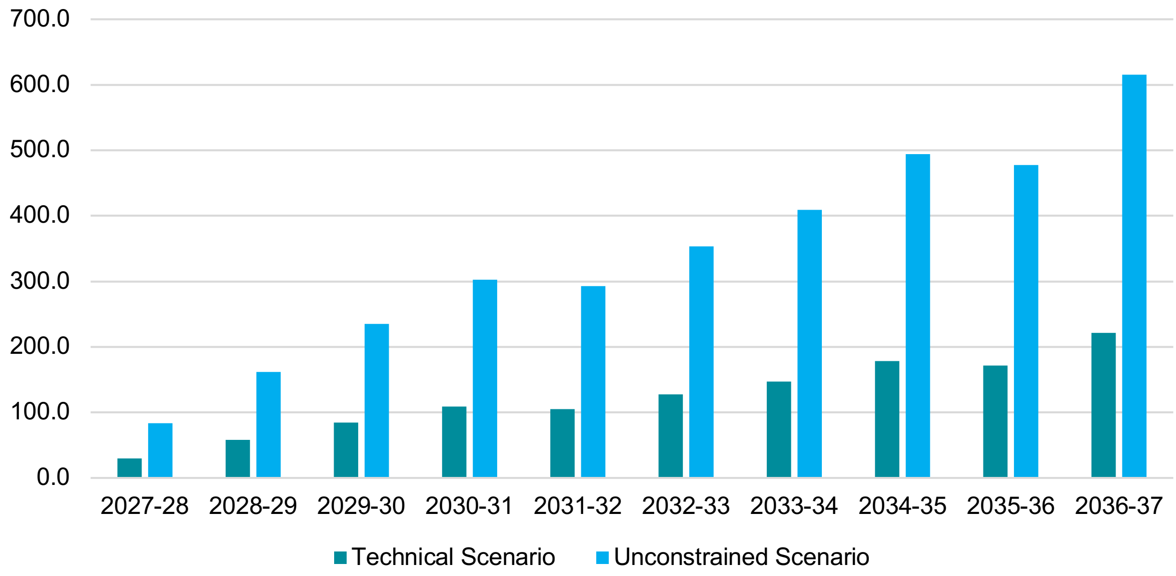
Table 5: Direct COE generated across rooftop solar PV rollout scenarios, full programme total (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	1,376.9	1,233.6
Unconstrained	3,822.8	3,424.9

Source: Cebr analysis

Figure 13 below breaks down direct employee compensation across each year of the 10-year delivery horizon in both scenarios. Of the total £3.4bn in direct employee compensation in the unconstrained scenario, £2.3bn is generated in the latter half of the installation programme from 2032 onwards, or £1.6bn in the final three years between 2034 and 2037. This again reflects the core ramp-up assumptions around delivery of rooftop solar PV, as direct impacts and employee compensation scales proportionally with the installation activity itself.

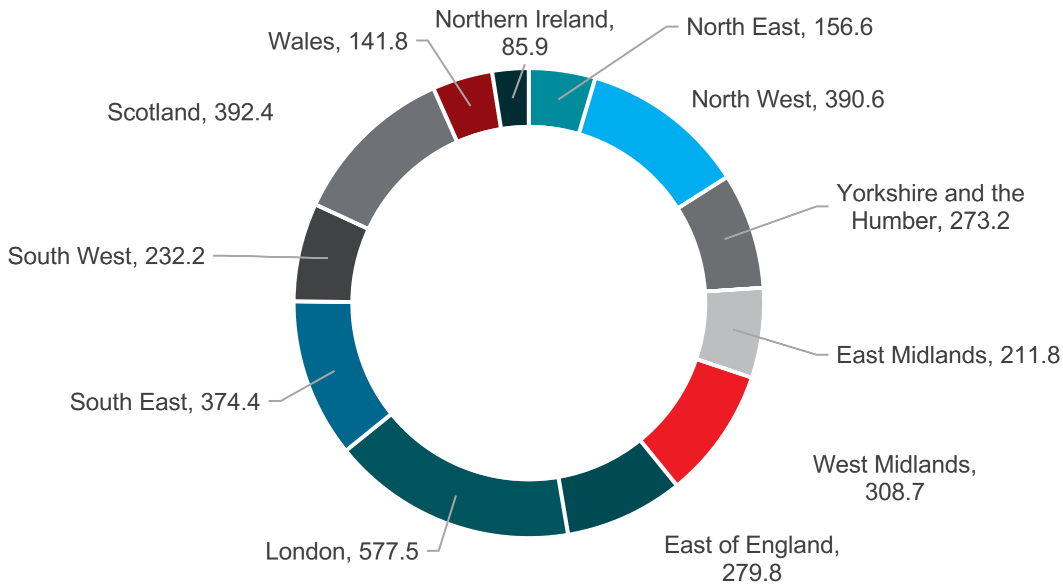
Figure 13: Annual breakdown of direct employee compensation generated by 10-year rooftop solar PV programme, technical and unconstrained scenarios, 2027-2037 (£m, 2026 prices, present values)



Source: Cebr analysis

Regional breakdowns of employee compensation paint a similar picture to the other core impact measures, illustrated in Figure 14 below. London and the South East again dominate here due to its high volume and concentration of social housing stock, hosting almost £1bn of direct employee compensation, in the unconstrained scenario across 10-year delivery. The northern and midlands regions in England collectively account for almost two fifths (39.2%) of UK-wide employee compensation, equating to £1.3bn over the ten years in present value terms.

Figure 14: Regional breakdown of direct COE generated by rooftop solar PV programme, 10-year rollout unconstrained scenario (£m, 2026 prices, present values)



Source: Cebr analysis

4. Aggregate economic impacts of social housing rooftop solar rollout

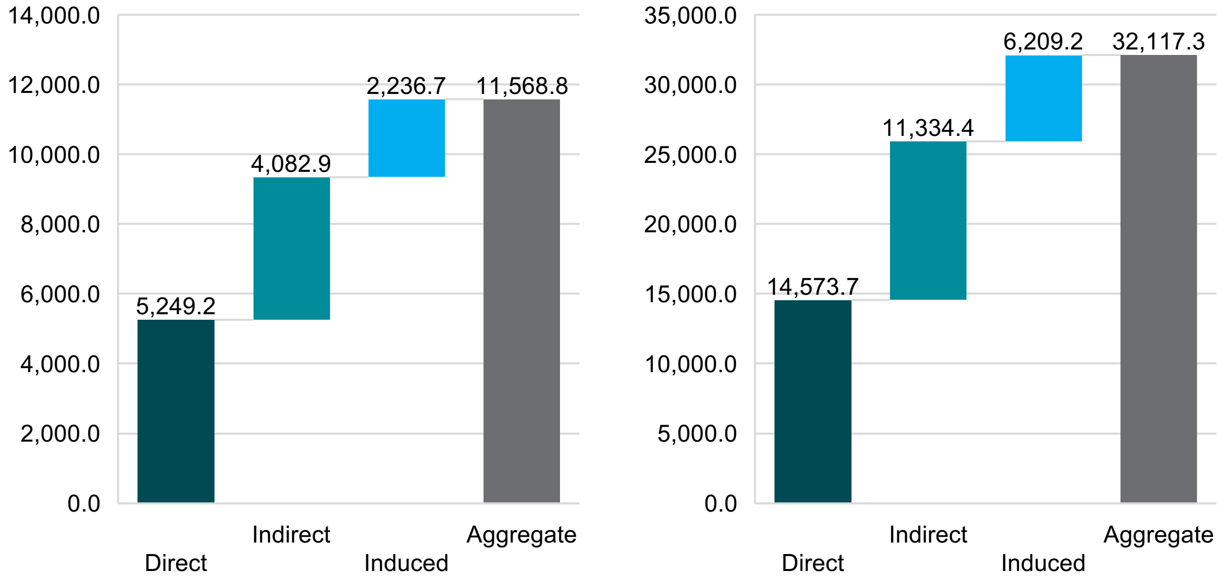
This section outlines the wider, aggregate economic activity supported by social housing rooftop solar throughout the UK economy. Building upon the direct economic activity presented in the previous section, the supply chain that underpins solar PV installation generates further economic activity, known as indirect impacts. Layered on top of direct and indirect impacts are induced impacts, supported by the consumption of employees across the direct and indirect layers spending their wages generated from this activity.

Direct, indirect and induced impacts are aggregated to quantify the overall economic impacts of social housing rooftop solar. Impact layers are derived using specific economic multipliers that are a function of Cebr's bespoke input-output modelling, with further detail provided in the methodology. This section covers all impact layers for all four core impact indicators, capturing both the technical and unconstrained scenarios of solar PV installation, but focussing just on 10-year rollout for brevity. Consistent with the direct impacts section, all monetary figures are provided in present values and 2026 prices, while employment is captured in FTE job years.

4.1 Wider output supported by rooftop solar PV

Solar PV rollout displays strong output multipliers as for every £1 of output generated directly by installation activity itself, a further £1.21 is generated throughout the wider UK economy. This is comprised of £0.78 in indirect impacts stimulated within the solar PV supply chain and a further £0.43 of output induced by the consumption of supply chain and installation employees. Figure 15 below visualises how these multipliers translate into indirect and induced output impacts across both scenarios, as the technical and unconstrained scenarios generate £11.6bn and £32.2bn respectively in aggregate output over 10-year rollout.

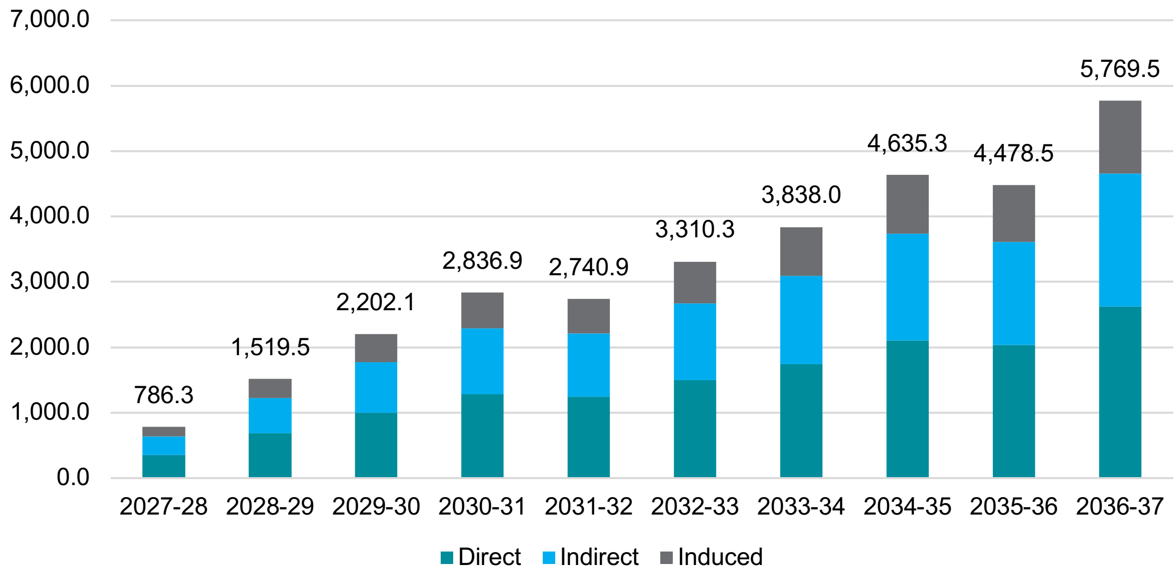
Figure 15: Aggregate output impacts throughout the UK of solar PV installation over full ten-year time horizon, technical (L) and unconstrained (R) scenarios (£m, 2026 prices, present values)



Source: Cebr analysis

Figure 16 below visualises the full breakdown of aggregate output by impact layer and individual year across the 10-year rollout, for the unconstrained scenario. Solar PV installation supports an average aggregate output impact of £3.2bn per year, across the decade delivery horizon, with most aggregate impacts constituted by direct installation activity and the supply chain. Following the direct perspective, aggregate output grows over time in line with proposed solar PV rollout, beginning the period at £789m in 2027-28 and ending at £5.8bn in 2036-37.

Figure 16: Annual breakdown of wider output impacts generated by solar PV installation, unconstrained scenario 10-year rollout, 2027-2037 (£m, 2026 prices, present values)

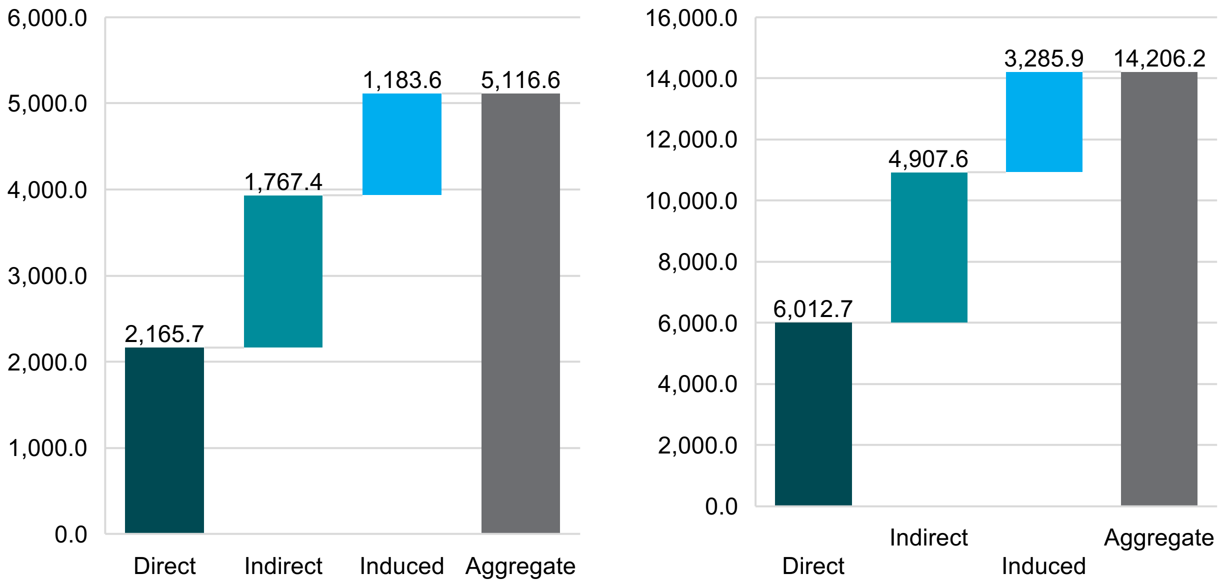


Source: Cebr analysis

4.2 Wider GVA generated by rooftop solar PV

Economic multiplier effects for GVA are the strongest of all indicators, demonstrating the strong potential for solar PV rollout to drive additional value added throughout the UK economy via its supply chain and employee spending. The technical rollout scenario supports aggregate GVA impacts worth £5.1bn over the 10-year rollout period in present value terms, £1.8bn of which would be generated indirectly throughout the supply chain. Aggregate impacts increase to £14.1bn in the unconstrained scenario, over one third of which (£4.9bn, 34.5%) is comprised of indirect impacts, and almost one quarter (£3.3bn, 23.1%) of which is generated by employee spending. These impacts reflect a total GVA multiplier of 2.36 – for every £1 of GVA generated directly by solar PV installation a further £1.36 is supported throughout the wider UK economy.

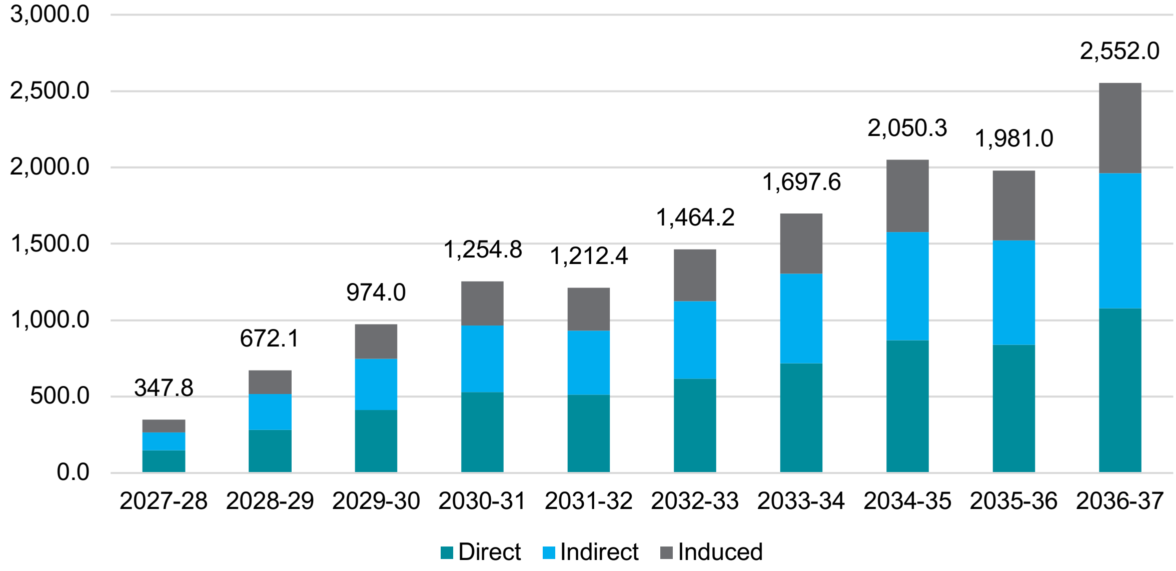
Figure 17: Aggregate GVA impacts throughout the UK of solar PV installation over full ten-year time horizon, technical (L) and unconstrained (R) scenarios (£m, 2026 prices, present values)



Source: Cebr analysis

Aggregate GVA impacts average out to substantial potential value added by solar PV installation on an annual basis. The unconstrained scenario rolling out solar PV to total UK social housing stock would deliver average aggregate GVA impacts of £1.4bn per year over the full 10-year rollout period, as Figure 18 visualises the full breakdown of aggregate GVA by impact layer and year. Again, the strong ramp up of proposed programme delivery means that over two-thirds (£9.7bn) of aggregate GVA impacts would be generated within the latter half of the rollout period, from 2032 onwards.

Figure 18: Annual breakdown of wider GVA impacts generated by solar PV installation, unconstrained scenario 10-year rollout, 2027-2037 (£m, 2026 prices, present values)

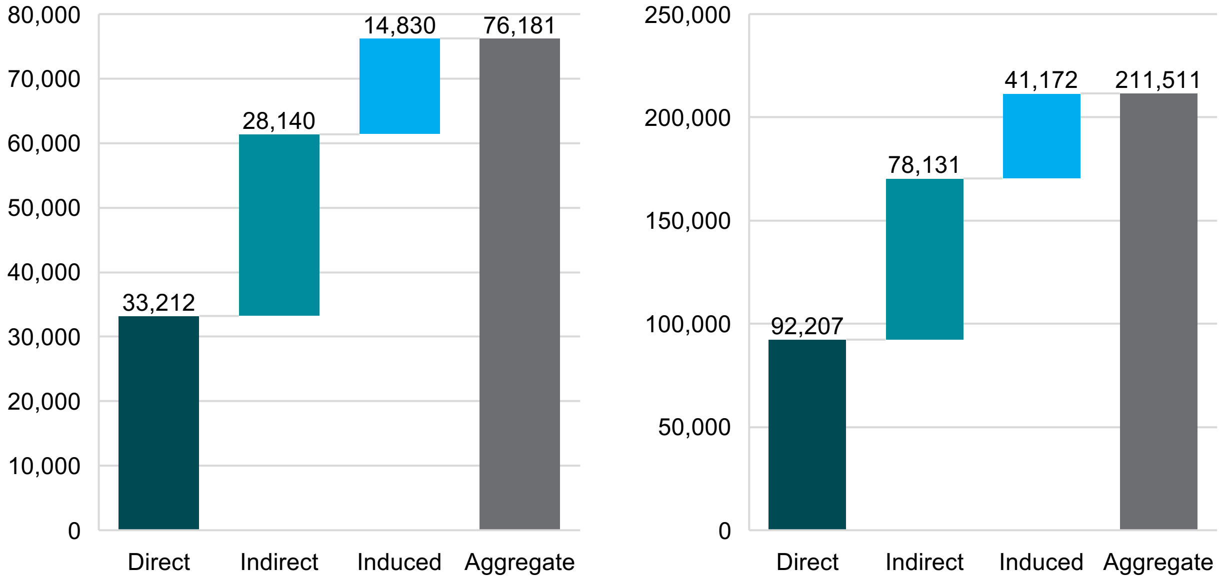


Source: Cebr analysis

4.3 Wider employment supported by rooftop solar PV

Social housing rooftop solar PV rollout would also generate significant economic multiplier effects from the employment perspective. For every 1 FTE job year generated directly by installation activity, a further 0.85 FTE job years would be generated within the supply chain and an additional 0.45 FTE job years would be supported by the spending and consumption of employees. Visualised in Figure 19, this means that layered on top of the 33,210 FTE job years supported directly in the technical rollout scenario, 28,140 FTE job years would be generated throughout the supply chain and 14,830 supported by employee spending. Impact layers aggregate to a total employment impact of 76,180 FTE job years supported in the technical rollout scenario, increasing almost three-fold to 211,510 FTE job years in the unconstrained scenario.

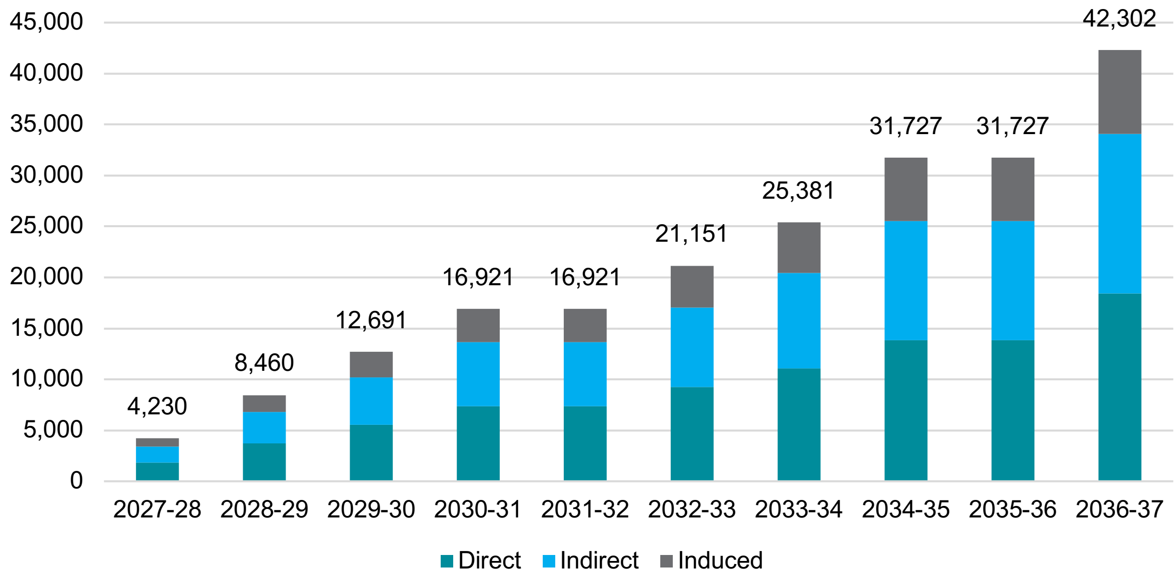
Figure 19: Aggregate employment impacts throughout the UK of solar PV installation over full ten-year time horizon, technical (L) and unconstrained (R) scenarios (FTE job years)



Source: Cebr analysis

Figure 20 below illustrates the annual and layer breakdown of aggregate employment impacts in the unconstrained solar PV installation scenario, reflecting rollout across total UK social housing stock. On average across the 10-year delivery horizon, rooftop solar PV installation would support an aggregate of 21,150 FTE jobs per year, 7,810 of which fall within supply chain activity and 4,120 of which are supported by employee spending. Aggregate employment impacts grow at an average annual rate of 25.9% over the decade of proposed delivery, ending the period at 42,300 FTE jobs in 2036-37.

Figure 20: Annual breakdown of wider employment impacts supported by solar PV installation, unconstrained scenario 10-year rollout, 2027-2037 (FTE job years)

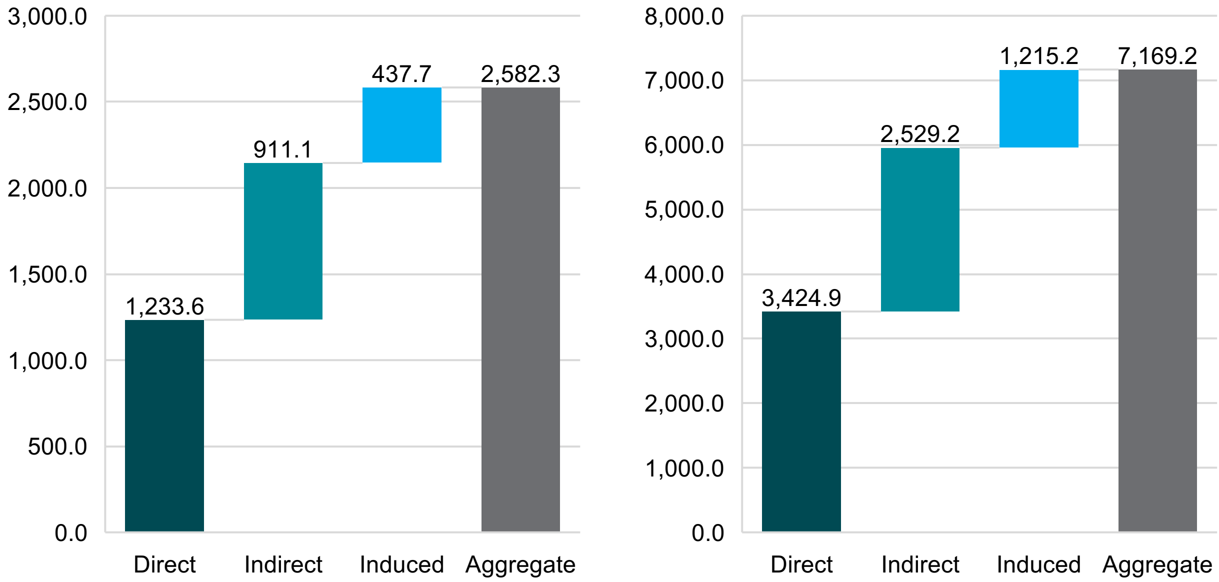


Source: Cebr analysis

4.4 Wider employee compensation generated

Although economic multiplier effects across the four core indicators were weakest for employee compensation, rooftop solar PV rollout would transfer significant additional value to workers via indirect and induced impacts. For every £1 of employee compensation directly generated by solar PV installation activity, a further £0.74 is embodied within supply chain activity and £0.35 supported through the consumption of employees. The application of these multipliers in both solar PV rollout scenarios is illustrated in Figure 21 below.

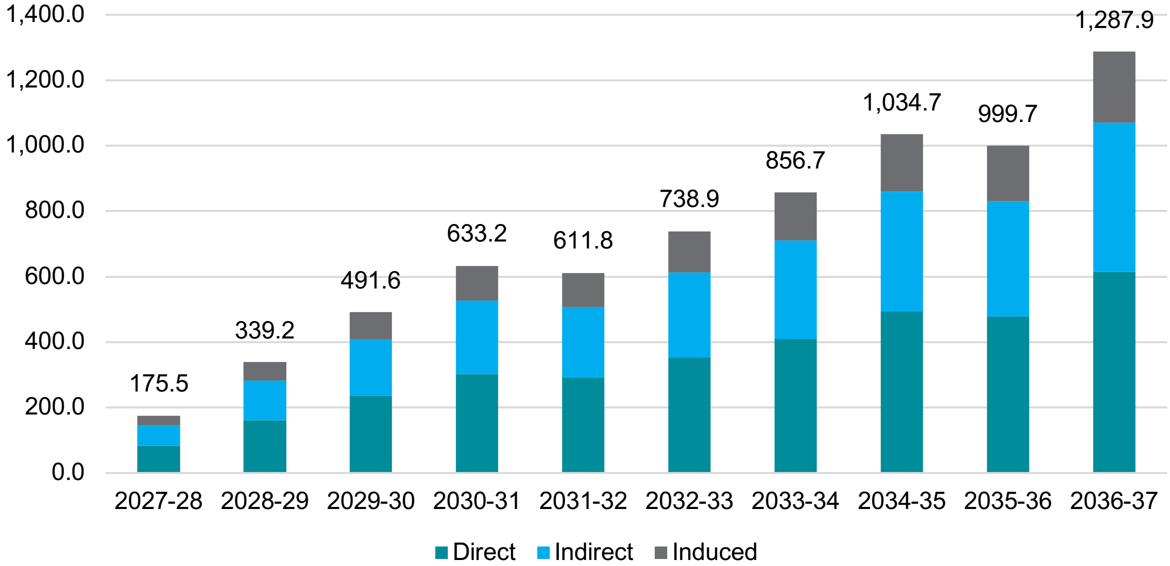
Figure 21: Aggregate COE impacts throughout the UK of solar PV installation over full ten-year time horizon, technical (L) and unconstrained scenarios (R) (£m, 2026 prices, present values)



Source: Cebr analysis

Accounting for all impact layers, aggregate employee compensation equates to £7.2bn in the unconstrained rollout scenario, in present value terms over the 10-year delivery horizon. This equates to average aggregate employee compensation of £717m per year, with Figure 22 detailing the full annual breakdown by impact layer. Aggregate employee compensation grows substantially throughout the rollout period, more than tripling between the first year and midpoint of the programme (2031-32), then more than doubling between the midpoint and final year (2036-37).

Figure 22: Annual breakdown of wider employee compensation impacts generated by solar PV installation, unconstrained scenario 10-year rollout, 2027-2037 (£m, 2026 prices, present values)



Source: Cebr analysis

5. Local economic impacts of social housing rooftop solar rollout

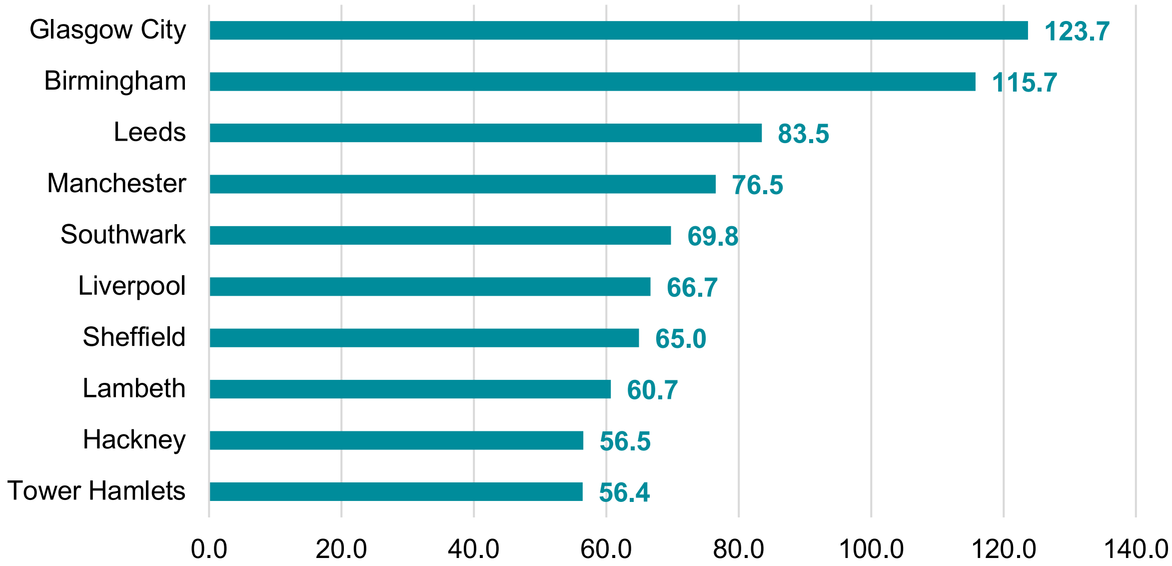
Cebr's granular, bottom-up modelling approach enables economic impacts to be broken down and analysed at a hyper local level. This section sets out the direct impacts generated by social housing rooftop solar rollout at local authority (LA) level throughout the UK, capturing specifically to the unconstrained installation scenario across the full 10-year delivery horizon. LA-level impacts are presented relative to local economies and triangulated with deprivation data to demonstrate the benefits solar PV rollout could bring to disadvantaged communities.

5.1 Impacts of social housing solar rollout on local economies

The economic impacts of social housing rooftop solar rollout are concentrated within urban areas throughout the UK, largely reflecting the distribution of social housing stock itself. Aside from London, LAs within the North West, West Midlands and Scotland also benefit from strong economic benefits. Even some more rural LAs perform well in the latter, highlighting a strong breadth of social housing stock in Scotland and therefore potential for solar PV rollout.

Examining the top 10 LAs by direct GVA contributions nationwide validates the urban-centric concentration of solar PV benefits. Figure 23 below illustrates the top 10 UK LAs according to total direct GVA generated by social housing rooftop solar rollout, across a 10-year delivery period in the unconstrained scenario. Key urban LAs such as Glasgow, Birmingham, Leeds and Manchester dominate the list, as this local distribution proves notably less London-centric than Cebr's previous research. This highlights the potential for social housing rooftop solar to drive economic value in urban centres throughout the UK's regions and nations.

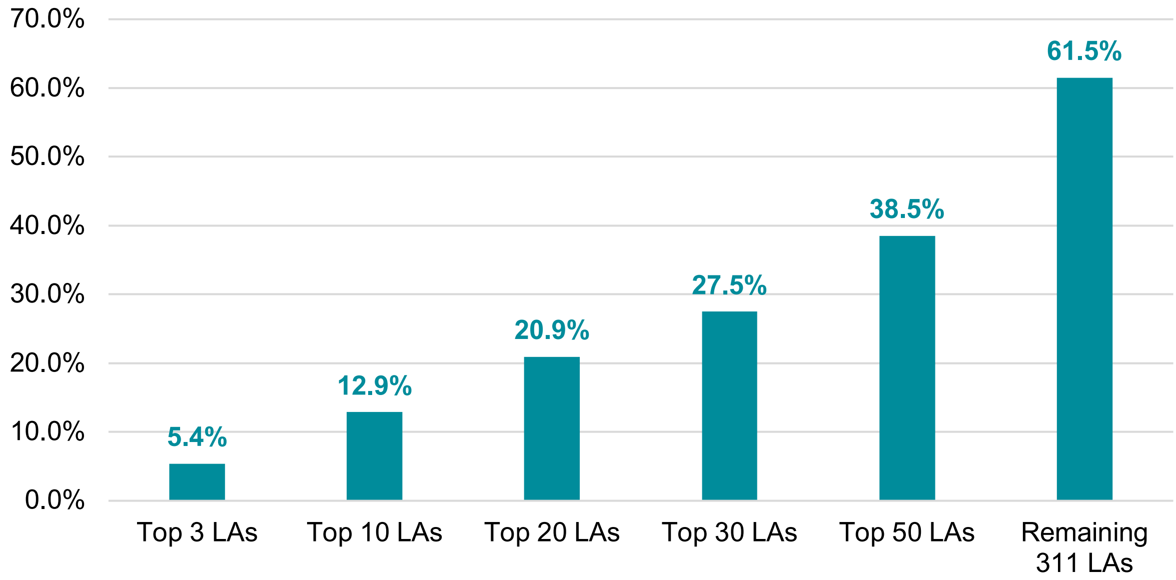
Figure 23: Top ten UK local authorities by direct GVA generated from social housing solar PV, unconstrained scenario 10-year rollout (£m, 2026 prices, present values)



Source: Cebr analysis

Figure 24 below sets out the concentration of economic value generated by social housing rooftop solar, in terms of the direct GVA generated within specific LA subsamples. While relatively concentrated these economic benefits prove more evenly distributed than in Cebr's prior brownfield housing research. In the unconstrained solar PV installation scenario, the top 3, 10 and 20 LAs account for 5.4%, 12.9% and 20.9% of UK-wide direct GVA respectively. While this concentration implies slight risk in national impacts relying on specific local areas, conversely it demonstrates the significant economic activity that could be generated were the solar PV installation programme to just target a small selection of urban LAs.

Figure 24: Concentration of total direct GVA across full 10-year rollout of unconstrained scenario, for select LA subsamples (present values, %)

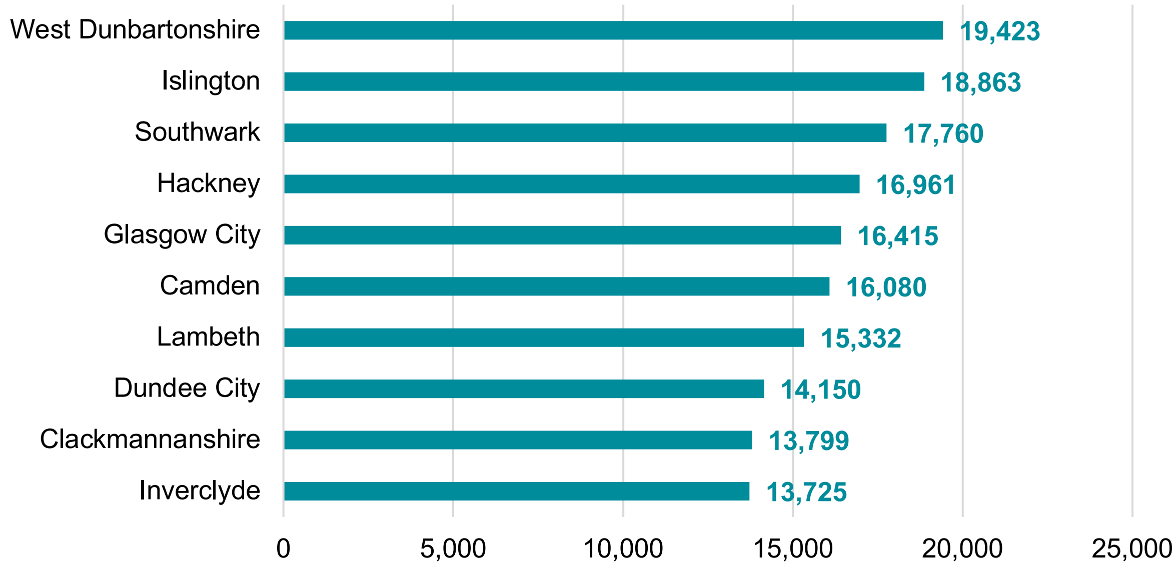


Source: Cebr analysis

5.2 Solar PV installation impacts relative to local economies

Expressing our direct economic impact analysis within the context of individual local economies unlocks an additional, valuable dimension around the intensity of solar PV installation impacts. Initially, Figure 25 visualises the number of proposed rooftop solar PV installations per 100,000 local population in each LA, under the unconstrained scenario. While LAs from across the English regions constituted most of the top ten list in absolute terms, under this perspective LAs in Scotland and London are particularly dominant and comprise the entire top ten. The unconstrained scenario would embody more than 10,000 solar PV installations per 100,000 population throughout the top ten, rising to almost 20,000 in West Dunbartonshire which tops the list.

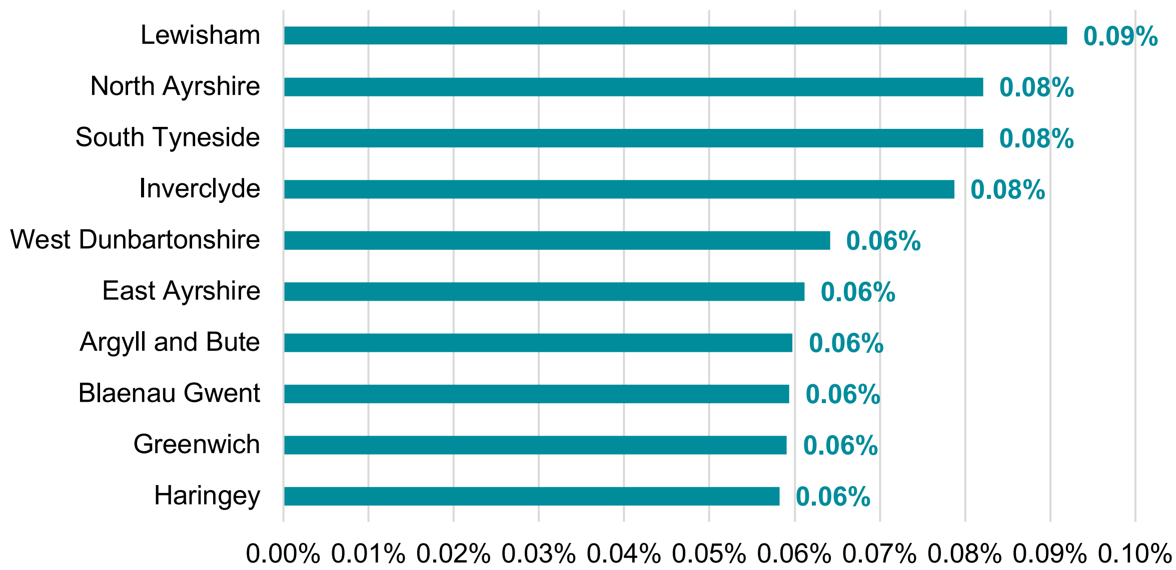
Figure 25: Top ten UK LAs by number of solar PV installations per 100,000 population, unconstrained scenario 10-year rollout



Source: Cebr analysis

Figure 26 presents an equivalent, relative perspective, but for average annual direct GVA impacts as a share of total GVA within each LA's economy. This list is again dominated by Scottish and London LAs, but captures a bit more variation with a North East LA featuring in third and a Welsh LA 8th. Relative GVA impacts are significantly lower here than the previous brownfield housebuilding research, given the lower expenditure and economic activity embodied in solar PV installation. Nevertheless in LAs at the top of the list, the average annual direct GVA generated by social housing solar rollout would represent just under £1 in every £1,000 of total GVA generated in the local area.

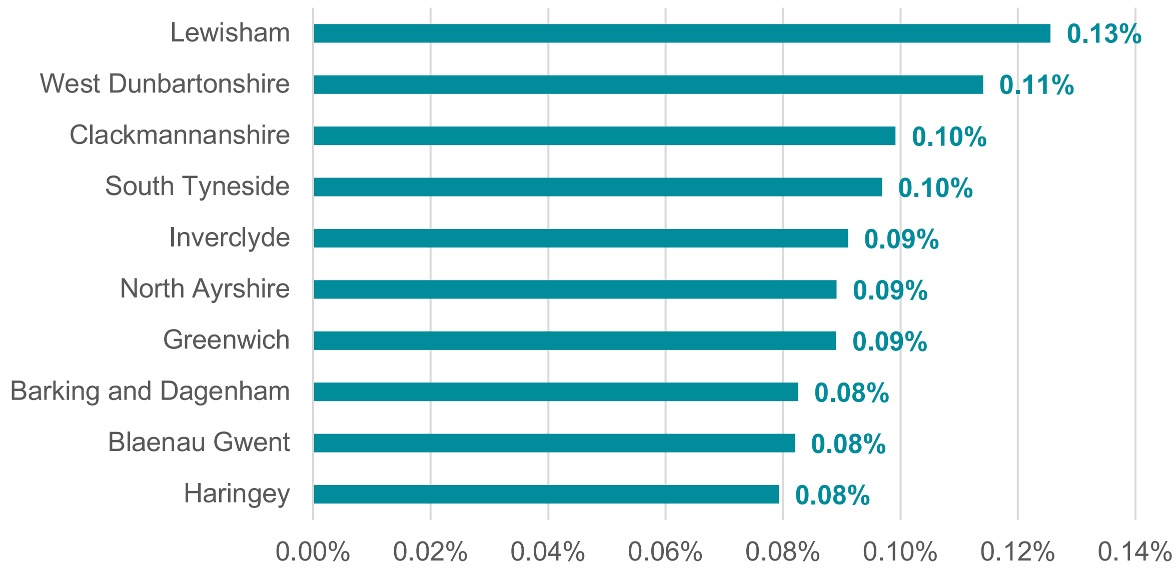
Figure 26: Top ten UK local authorities by average annual direct GVA generated by rooftop solar PV installation, as a share of LA GVA, unconstrained scenario 10-year rollout



Source: Cebr analysis

Impacts of the unconstrained solar PV installation are also presented relative to local economies from an employment perspective, in Figure 27 below. The top 10 LAs share significant overlap with the relative GVA perspective, demonstrating a strong link between value-added and employment impacts generated by solar PV installation at a local level. Lewisham tops the list, in which average annual direct FTE jobs supported by solar PV installation would represent approximately 1 in every 800 FTE jobs throughout the LA.

Figure 27: Top ten UK local authorities by average annual direct FTE jobs supported by rooftop solar PV installation, as a share of LA labour force, unconstrained scenario 10-year rollout



Source: Cebr analysis

5.3 Deprived local authorities and solar PV impacts

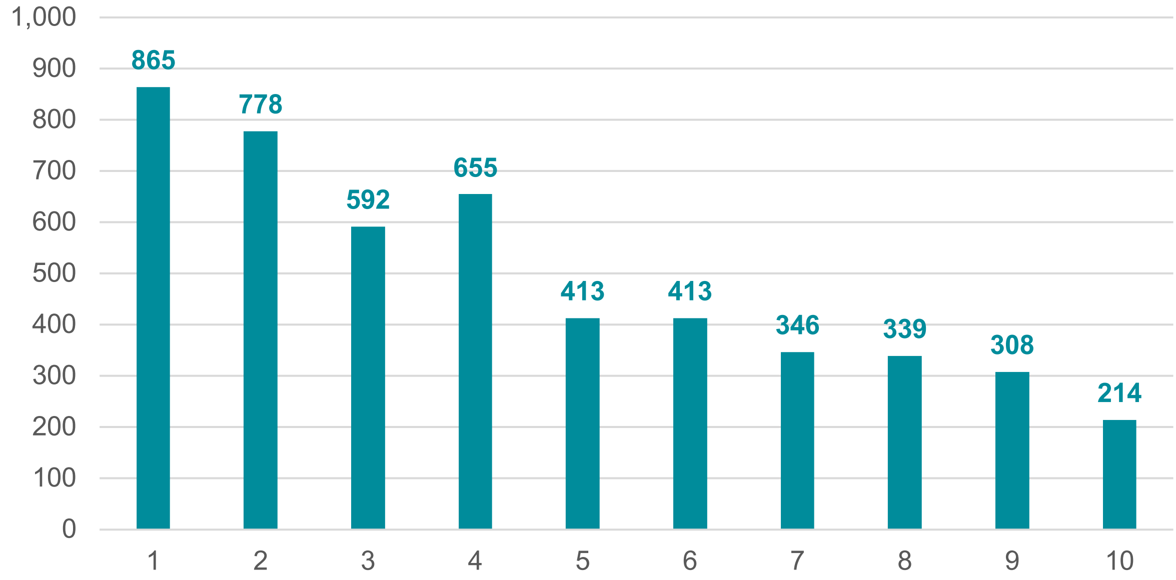
Cebr combined hyper-local direct impact analysis with wider data around deprivation at LA level, revealing that the social housing rooftop solar rollout would generate economic impacts that disproportionately benefit deprived areas. Figure 28 provides a strong visualisation of this conclusion, presenting total direct GVA generated in the unconstrained solar PV installation scenario, according to deprivation decile. This is captured through the overall deprivation measure within the Index of Multiple Deprivation (IMD),[9] that is restricted to just England in this context.

Over the full 10-year rollout of the unconstrained scenario, solar PV installation would generate £865m of direct GVA within the most deprived tenth of English LAs, equivalent to almost two tenths (17.6%) of total nationwide direct GVA. The three most deprived

[9] The IMD is the UK government's official measure of deprivation, that ranks local areas across England from most to least deprived, based on a weighted combination of data and profiles in seven domains. The 'overall' measure presents a weighted composite metric covering all seven domains of deprivation

deciles (i.e. bottom 30% of English LAs) constitute almost half (45.4%) of nationwide direct GVA impacts at £2.2bn over the full ten years, in present value terms. The chart demonstrates a strong, consistent relationship between deprivation and solar PV installation direct GVA impacts throughout the distribution. This is an intuitive finding given the scope of rollout covering social housing stock, which tends to be concentrated in more deprived areas.

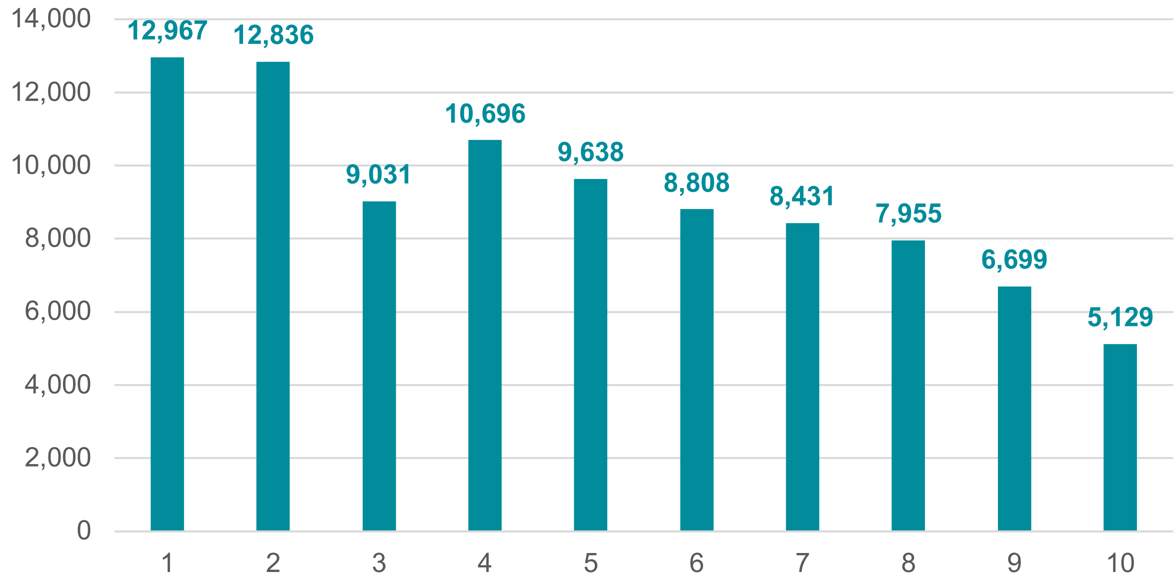
Figure 28: Total direct GVA generated over 10-year unconstrained solar PV installation scenario, by overall Index of Multiple Deprivation decile (1 = most deprived, £m, 2026 prices, present values)



Source: Cebr analysis

This comparative analysis and similar conclusions can also be replicated through the lens of employment. Figure 29 disaggregates all LAs throughout our UK-wide sample into deciles, this time according to unemployment rates, demonstrating that employment directly supported by social housing rooftop solar rollout is concentrated in areas where unemployment is highest. The decile (10% of total LAs) with the highest unemployment rates account for 14.1% of nationwide direct employment impacts, equivalent to 12,970 FTE job years over the 10-year rollout in the unconstrained scenario. The top three deciles (30% of LAs) account for almost two-fifths (37.8%) of direct employment impacts throughout the UK, as the notable relationship between unemployment and direct FTE job years is illustrated below.

Figure 29: Total direct FTE job-years supported over ten-year unconstrained solar PV installation scenario, by decile of unemployment rates (1= highest unemployment, FTE jobs)



Source: Cebr analysis

6. Household savings and fiscal impacts of rooftop solar rollout

Alongside the direct, indirect, and induced impacts supported by a large-scale installation programme of solar PV, the arrays would also generate revenue for the Exchequer and household savings for those living in social homes. This section sets out these additional benefits in three parts. We cover the direct fiscal impact of the construction process, increases in government revenue from the share of solar energy exported back to the grid, and the domestic energy generation driving potential savings in household energy bills.

6.1 Fiscal impacts of solar PV installation

This subsection sets out the potential fiscal impacts generated by the economic activity embodied within social housing rooftop solar rollout. Direct economic impacts of solar PV installation (presented in Section 3) were leveraged to derive estimated tax revenues generated. Tax revenues were calculated and aggregated across four main tax heads – income tax (IT), national insurance contributions (NICs),[10] VAT, and corporation tax (CT).[11]

The installation of solar PV arrays within UK social housing stock is estimated to have a significant fiscal impact under both scenarios. Table 6 below presents total estimated tax revenue generated for the two scenarios and the 5- versus 10-year rollout periods. Over the 5-year delivery horizon, the revenue generated from installation amounts to £874.9 million in the technical scenario, whereas the unconstrained scenario has almost triple the fiscal impact, totalling £2,429.1 million in present value terms. The 10-year rollout generates slightly less revenue in both scenarios, at £783.8 million and £2,176.2 million respectively. This is a consequence of the present value adjustments within our calculations as the shorter time window limits discounting effects.

Table 6: Tax revenue generated across rooftop solar PV rollout scenarios (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	874.9	783.8
Unconstrained	2,429.1	2,176.2

Source: HMRC data, Cebr analysis

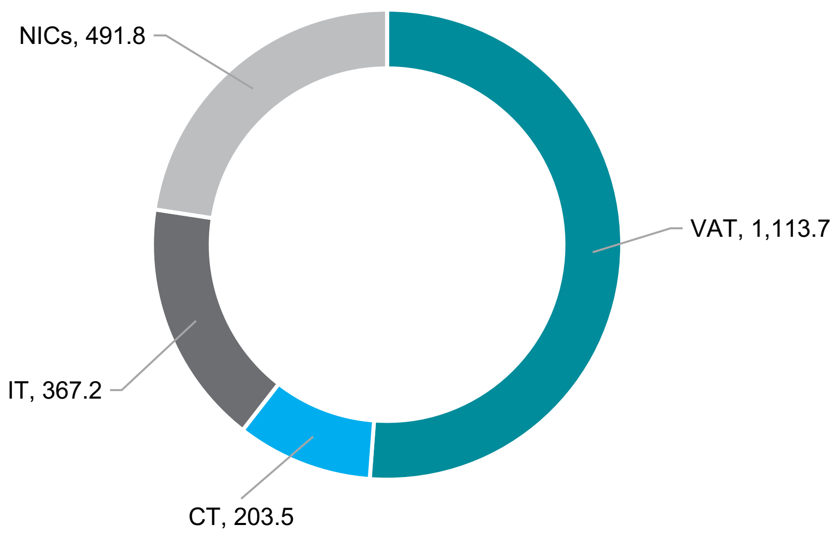
Figure 30 visualises the breakdown of expected revenues by major tax head in the unconstrained scenario. This demonstrates that VAT accounts for the largest share, at over half (51.2%) of all tax revenue, followed by NICs at over one fifth (22.6%), then IT and CT (this distribution of tax revenue is consistent across all scenarios and timeframes). In

[10] Both employee and employer NICs have been calculated.

[11] This is discussed further in the methodology.

total across the full ten-year rollout period, £1,114 million of the £2,176 million revenue would come from VAT, followed by £492 million from NICs, £367 million from IT, and £204 million from CT.

Figure 30: Tax revenue in the ten-year unconstrained scenario, by tax head (£m, 2026 prices, present value)



Source: HMRC data, Cebr analysis

6.2 Government revenue from solar PV energy generation exported to the grid

This sub-section and Section 6.3 both build on previous work by GBF to explore the potential impacts of the energy generation associated with rooftop solar rollout. Under a centrally funded and managed rollout scheme, the government would expect to gain an additional revenue stream from large scale solar PV installation through exporting a share of the generated energy to the electricity grid. This section follows the approach from GBF work, but rests on Ofgem data for the rates of energy exportation and energy prices, and on DESNZ data on generation capacity; these sources generate key assumptions around the value of exported energy, and the share of energy exported.[12]

Over the full roll-out period, there is a cumulative buildup of revenue as a higher share of the solar PV arrays are installed throughout the social homes able to accommodate them. This total revenue is lowest for the technical 5-year rollout, at £742.9 million, and highest for the unconstrained 10-year rollout, at £3.2 billion. Table 7 presents this total revenue generated for both scenarios in each timeline:

[12] This is discussed further in the methodology.

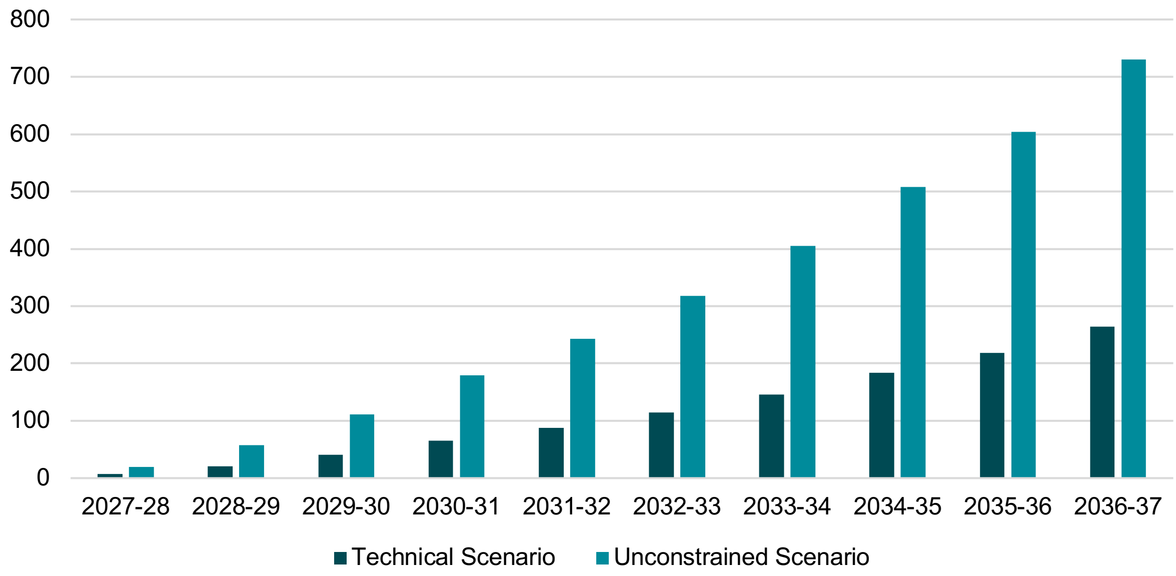
Table 7: Cumulative government revenue generated across rooftop solar PV rollout scenarios, once completed (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	742.9	1,148.3
Unconstrained	2,054.7	3,176.3

Source: Cebr analysis

Over the full rooftop solar rollout, annual government revenue increases year on year as a larger share of the solar PV installations are completed and start exporting energy to the grid. This produces a scaling effect throughout the period, visualised in Figure 31.

Figure 31: Year on year government revenue for the 10-year solar PV rollout scenarios (£m, 2026 prices, present values)



Source: Cebr analysis

It is important to highlight that this government revenue is ongoing as opposed to the one-off economic and fiscal impacts of installation itself. Once the rollout is complete, the government would generate a significant annual income from exporting this energy to the grid, meaning that the fiscal benefits would sustain beyond the installation period. For example, under the unconstrained 10-year scenario, the annual government revenue generated by the solar PV arrays once finished in 2037 would be £730 million in present value. The arrays would then continue to generate revenue at this level for the government annually.

6.3 Household savings from solar PV energy generation

A further benefit of the installation programme would materialise through reducing the exposure of social housing tenants to rising energy bills. While the government generates revenue from selling excess electricity to the grid, we estimate that almost three fifths (59.6%) of the electricity generated by domestic solar arrays would be consumed by the household in which it is generated. Self-consumption would mitigate demand for external energy generating significant household savings, the strongest financial benefit identified in this section.

The cumulative household savings from energy bills across the different rollout scenarios are shown in Table 8 below. Cebr estimate that, across the relevant timeframes, between £2.2 billion and £9.6 billion would be generated in total household savings for social homes with rooftop solar installed. Once the rollout is complete, energy generation would continue at full capacity each year, meaning that these households would continue to accrue annual savings. Hence, this rollout would help provide lower income households living in social homes long-term insulation against rising energy bills.

Table 8: Cumulative household savings across rooftop solar PV rollout scenarios, once completed (£m, 2026 prices, present values)

(£m, 2026 prices, PV)	5-year Rollout	10-year Rollout
Technical	2,242.3	3,466.3
Unconstrained	6,202.1	9,587.6

Source: Cebr analysis

Analysing these savings at a household level presents these benefits through a more tangible, individual perspective. This amounts to an average per household annual saving of £520.33 in present values across the five-year programme delivery for both scenarios, and £438.10 per household annually when averaged across the ten-year programme delivery. This is the equivalent of 25% to 30% of households' current maximum energy bills.[13] To note, average household savings differ here due to present value conversions, which discount future monetary impacts and therefore produce lower figures under the longer, ten-year delivery. In raw, undiscounted terms, per household savings equate to £617.99 for both scenarios.

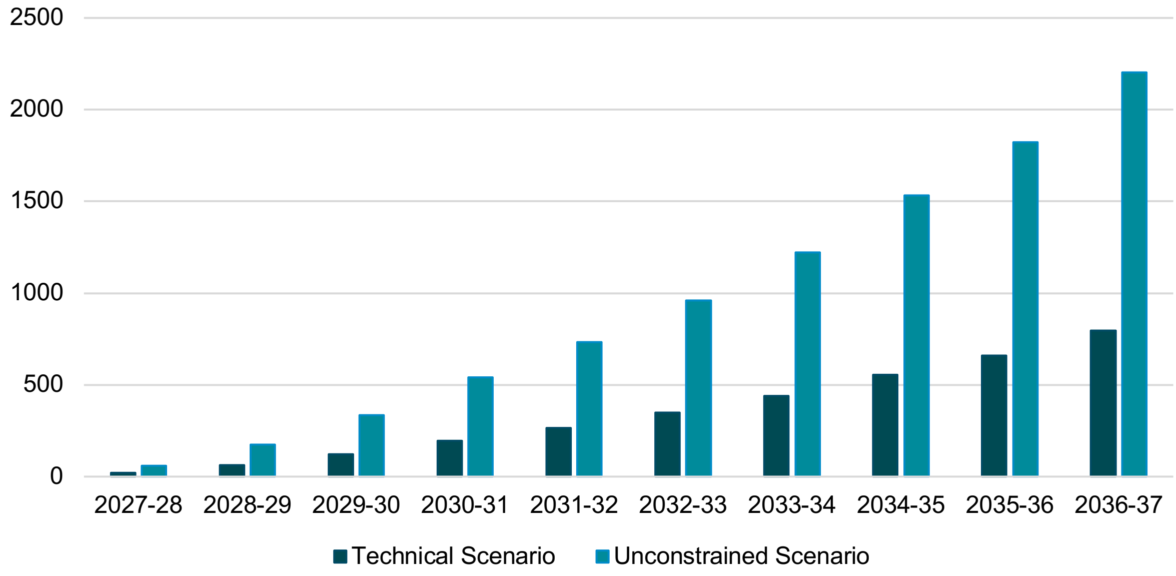
Figure 32: Household savings, per household across rooftop solar PV rollout scenarios (£, 2026 prices)[14]

[13] Based on the Ofgem price cap October – December 2026, this can be found [here].
[14] PV stands for present value.

Source: Cebr analysis

While it will take five to ten years for this benefit to reach all eligible social homes, household savings begin to accrue to each social home upon installation of rooftop solar PV. For example, under the 10-year unconstrained scenario, by the end of 2027/2028 an estimated 101,000 social homes will have solar PV installed. By that point, aggregate household savings would total £60.0 million, equivalent to £597.01 in present value savings per household with solar PV installed. This means that although it will take five to ten years for savings to reach all eligible households, those receiving solar PV in the earlier years would begin to benefit meaningfully well before the rollout is complete. This year-on-year growth in household savings is presented in Figure 33.

Figure 33: Year on year household savings for the 10-year solar PV rollout scenarios (£m, 2026 prices, present values)



Source: Cebr analysis

Appendix 1: Methodology

A.1 Rooftop solar PV installation potential across the UK

The core foundation of our modelling involved identifying the volume of social housing eligible for solar PV installation, to scope the modelling and extent of our research. We did this for two distinct perspectives: one technical scenario that set out a feasible, realistic and deliverable scale of social housing rooftop solar, and an unconstrained scenario that relaxed restrictions and served as an illustrative ceiling or outer bound, rather than projection of delivery.

We primarily used ONS data to derive figures for the current stock of social housing, alongside analogous datasets for the devolved nations. We then utilised Energy Performance Certificates (EPC) data to get insight into the distribution of solar PV across social homes. These datasets allowed us to develop estimates for the number of social homes without solar PV at the highly granular level of local authorities (LAs). This level of granularity was utilised throughout the project to allow us to assess how the direct impacts impacted each LA across the UK.

The divergence between the technical and unconstrained scenarios lies in the eligibility criteria used to decide if a social home could accommodate a solar PV installation. Under the unconstrained scenario, the number is derived by simply subtracting the number of social homes with solar PV from the current total number of social homes, in every LA. For the technical scenario, we incorporated adjustments and assumptions to generate a more realistic and deliverable scenario, through two exclusion criteria. Firstly, all flats were considered ineligible for solar PV expansion;[15] and secondly applying a feasibility ratio on the remaining social houses.[16]

Differences in impacts result from differences in eligibility criteria, which create significant divergence in the number of installations possible across the UK, and therefore the magnitude of expenditure and impact. Solar PV installation was modelled over five and ten-year delivery horizons, phased under a ramp-up assumption, back-loading the delivery of rooftop solar PV to account for the fact that capacity will take time to build up to the level required for a rollout of this scale. This temporal profile follows the framework of that in Cebr's previous brownfield housebuilding research, and wider evidence around phasing of capacity and delivery.[17]

[15] We acknowledge that some flats to have rooftop solar PV installed, and this was verified by our analysis of the EPC dataset, which found a small share of social homes with rooftop solar PV were flats. However, due to a lack of easily accessible data on the share of social home flats with rooftop access and wider data constraints, we opted for full exclusion under this scenario.

[16] This feasibility ratio, derived from earlier work by GBF, is 69.4%.

[17] Savills and NHF (2025) The impact of funding building safety, available here

A.2 Establishing rooftop solar PV installation costs

Having identified the volume of social housing able to accommodate solar PV installation, the next phase revolved around estimating installation costs for solar PV on a per-system basis. A bottom-up approach was employed, whereby we produced an estimated cost of installing a single 5kW solar PV array, and then applied this to all eligible homes.

We first calculated an overall cost figure for a domestic 5kW solar PV installation by sourcing detailed price per kW time series data from DESNZ, applying regional variation shown in average costs.[18] This cost figure was then disaggregated into different component parts based on the share of costs from the highly granular US Department of Energy solar PV system costs, with manual adjustments to remove any US specific costs that do not apply in a UK context.[19] These disaggregated components were then mapped to standard industrial classification (SIC) codes. This provided us with the total expenditure required for a solar PV installation, which was then scaled up across the two different scenarios to provide the total cost of the proposed solar PV installation programmes.

A.3 Deriving direct installation impacts

Having established total installation cost or expenditure, direct economic impacts were modelled in terms of output, gross value added, employment and employee compensation:

- **Output:** Total value of the goods and services generated by the installation of solar PV, measure of gross production that incorporates both the value of intermediate inputs and the value added to them;
- **Gross Value Added (GVA):** Contribution of the installation of solar PV to the overall economy (GDP), representing the value added through the production process, removing the value of intermediate inputs;
- **Employment:** Number of full-time equivalent (FTE) jobs supported by the installation of solar PV. Measured in job-years, i.e. two job years represents one job sustained for two years, or two jobs sustained for one year; and
- **Employee compensation (COE):** Total remuneration paid to workers involved in solar PV installation, includes wages and salaries, social security and pension contributions and other employment benefits.

Deriving the sectoral composition of total expenditure is the critical element of direct impact modelling. As discussed in A.2, the elemental cost categories were mapped to specific sectors under the Standard Industrial Classification (SIC) framework, to align this

18 This can be found here
19 This can be found here

with the structure of modelling and official economic data. Applying this distribution to total expenditure yielded a detailed, SIC-based distribution. We then applied wider national accounting data around imports, product taxes and trading margins by sector, in order to strip out the rather significant import content of solar PV, producing a final figure for domestic output.

Using sector-specific ratios capturing the empirical relationships between these indicators across the UK economy, output, gross value added, employment and employee compensation were derived from total expenditure. This process drew from official ONS datasets including Supply and Use Tables (SUTs), the Annual Business Survey (ABS) and Business Register and Employment Survey (BRES).

A.4 Modelling wider economic impacts

Direct economic impacts of rooftop solar PV were then integrated into Cebr's economic input-output (IO) framework for the national economy. The composition of direct impacts across different sectors is leveraged to generate bespoke economic multipliers across the four direct impact measures. Multipliers are applied to direct impacts to derive indirect, induced and subsequently aggregate impacts of solar PV installation nationwide.

Cebr's national input-output models enable the analysis of relationships within and between industries by considering supply chain connections and the interactions between industries, government bodies, capital investors, and international trade. The models yield three distinct types of impact layers across the four indicators, which are combined to convey the aggregate impacts of solar PV installation. The three impact layers are as follows:

1. **Direct impact:** The value generated, and jobs supported, directly by the economic activities involved in the installation of solar PV.
2. **Indirect impact:** The value and jobs supported in industries that supply inputs to the installation of solar PV, i.e. through the construction supply chain.
3. **Induced impact:** The value and jobs supported in the wider economy when the workers who are directly and indirectly employed in this process, e.g. through its supply chain, spend their wages and salaries on final goods and services.

A.5 Exchequer benefits and household savings

Fiscal impact modelling and tax revenue calculations:

Tax revenue was estimated using a variety of techniques. For income tax (IT) and NICs, we utilised Cebr's in-house tax calculator. Direct FTE employee impacts were converted into headcount, and estimated a wage for these employees, based on the level of employee compensation workers receive in the sector of the economy the economic activity occurred in. This allowed us to derive income tax and NICs at a sectoral level, with this granularity providing increased accuracy.

To estimate corporation tax (CT) we leveraged the most recent HMRC data to assess the tax revenue generated as a share of output, by sector of the economy. This was then applied to the sectoral distribution of economic activity underpinning the solar PV construction process, to produce an estimate CT generated per installation. This was then expanded to cover all eligible homes in both scenarios.

Given that government plans to remove the zero-rating of solar PV in April 2027 and increase VAT to 5%, we also derived a total VAT figure associated with solar PV installations. This was calculated as a 5% share of current expenditure estimates that reflect the zero-rated environment.[20]

Household saving and government revenue from energy exports:

Outputs within these sections refresh and reproduce previous work undertaken by GBF. The methodology for this is as follows.

The annual kWh generated per home is calculated by combining the installed capacity per array (5kW per home) with the number of hours in a year, and an average of the load factor for solar PV arrays from 2020/2021 to 2024/2025.[21] [22] This was then scaled to the number of homes eligible for solar PV under both technical and unconstrained scenarios, producing total energy generation estimates

We then took data from Ofgem, which are the most significant inputs for the results. Firstly, using Ofgem SEG data, we estimated the share of all solar PV electricity generated which is exported to the grid and therefore what share is consumed by households.[23] This input dictates what share of the energy generation is apportioned to household savings, and what share is exported to the grid by the government. We estimate the share of electricity exported to the grid is 40.4% of energy generated by domestic solar PV systems.

The above Ofgem source was used to derive the amount of money the grid paid per kWh of solar energy exported. The Ofgem price cap was then used to estimate the cost saved by kWh for energy consumed by households.[24] These were then scaled up the kWh exported and consumed by households, respectively, to estimate the government revenue generated and the household savings, respectively.

Changes to the share of electricity exported, and the price per kWh, would inherently alter the outputs for this section of the report. Any price shocks which increase the price of

[20] As discussed in section 3, this would amount to a financial transfer within the public sector, rather than a resource cost, due to the government being both the funder of the project and the recipient through HMRC.

[21] The load factor of a solar PV array is the ratio of the actual electricity generated by the device over a specific time period (in this case, annually) compared to he theoretical maximum capacity.

[22] This data comes from DEZNZ, and the average we calculated came to 9.00%. We took the average over the previous five years to account for year-on-year weather variation.

[23] This source, the Ofgem Smart Export Guarantee (SEG) 2025 Annual Report, can be found here.

[24] Ofgem price cap from 1st October to 31st December 2026, can be found here.

electricity would push the household savings and government revenue from electricity exported to the grid upwards.