

# Annex I – Analytical methodologies



Department for  
Energy Security  
& Net Zero

This annex provides more detail on the methodology and sources underpinning the analysis presented in the Roadmap. This is primarily contained in Part 1, Chapter 2 – the Deployment Scenarios chapter. This includes the scenarios themselves, alongside other estimates such as homes powered, jobs-supported and land use estimates.

## Deployment scenarios

The solar PV deployment scenarios presented here aim to facilitate informed decision-making and strategic planning in the context of solar energy development. The scenarios are a combination of analysis based on the available data and scenario-based assumptions agreed with the Taskforce. It is crucial to note that the quantitative estimates presented are not indicative of specific targets, ambitions or forecasts. They are not intended to be interpreted as an assessment of minimum or maximum deployment potential, but provide an order of magnitude view of potential under a range of different assumptions for policy, economic and infrastructure conditions. Different data sources and approaches have been applied to model the three individual sub-sectors. These are summarised in the table below:

Table AI1: Summary of key data and assumptions used in the Solar PV Deployment Scenarios

Scenario	Solar Sub-Sector	Data and assumptions
Business As Usual	Residential rooftop (<10kW)	Assumes current level of rooftop deployment to 2027 supported by higher electricity prices and return to long-term average (200MW) from 2028. We assume no change in behavioural and social factors influencing individual decisions on rooftop solar PV uptake and no additional policy support. <sup>1</sup>
	Commercial rooftop and ground mount (10kW to 5MW)	Assumes no further growth in deployment and flat annual deployment to 2030 and in the longer term. The annual deployment levels are based on the Renewable Energy Planning Database (October 2024) <sup>2</sup> using the most recent 3-year average.
	Large-scale ground mount (>5MW)	Assumes most recent annual deployment level (600MW) in the near term and slow growth that reaches the maximum historic annual growth of 2,600MW by 2029.
Current Policy	Residential rooftop (<10kW)	Latest statistics show around 600MW growth in the last 12 months (2024) which is 30% higher than the level in 2022 at higher retail prices. This could be interpreted as

Scenarios Range		an early indication there are other factors (in addition to retail prices) driving residential installations. To account for this uncertainty we assume a slightly lower long-term average deployment of 500MW a year.
	Commercial rooftop and ground mount (10kW to 5MW)	Assumes no further growth in deployment and flat annual deployment to 2030 and in the longer term. The annual deployment levels are based on the Renewables Energy Planning Database (October 2024) <sup>3</sup> .
	Large-scale ground mount (>5MW)	Based on analysis of the Renewables Energy Planning Database – October 2024. The pipeline includes: projects in construction, projects with an approved application and projects that have submitted an application. For the last group, we assume an attrition rate of 20% which is based on the most recent historic average.
Further Rooftop Barriers Removed	Residential rooftop (<10kW)	In addition to the deployment in the Optimistic Current Policy Scenarios, we assume additional growth potential from installations on all new homes from the introduction of Future Homes Standard. The policy is still under development and the provided estimates are highly uncertain and subject to change.
	Commercial rooftop and ground mount (10kW to 5MW)	In addition to the growth in the Optimistic Current Policy Scenarios, we considered the technological potential of deploying rooftop solar on UK Warehouses based on research by LCP Delta <sup>4</sup> . The estimated potential is for about 15GW. We included 50% of the max potential to account for barriers specific to the sector.
	Large-scale ground mount (>5MW)	Same assumptions as in the Optimistic Current Policy Higher Range scenario.

### Estimates within the ‘What could Solar PV deliver by 2030?’ infographic

Table A12: Data and Assumptions Used in What Solar PV Could Deliver by 2030 Infographic

Statistic	Data and Assumptions
Homes powered (Ground mount solar PV, GB)	Electricity consumption based on mean domestic consumption published in ‘Subnational electricity and gas consumption summary report 2023’, December 2024 - <a href="https://www.gov.uk/government/statistics/subnational-electricity-and-gas-consumption-summary-report-2023">https://www.gov.uk/government/statistics/subnational-electricity-and-gas-consumption-summary-report-2023</a> . This estimate has been used for both 2025 and 2030 estimates. Although uncertain, it is likely that household electricity consumption will be higher in 2030 due to the increased electrification of heating and adoption of EVs. This would lead to a lower estimate of homes powered by 2030.

	<p>Estimate for 2025 is based on the current load factor (2023), published in Energy Trends Table 6.1, January 2025 - <a href="https://www.gov.uk/government/statistics/energy-trends-section-6-renewables">https://www.gov.uk/government/statistics/energy-trends-section-6-renewables</a>.</p> <p>Estimate for 2030 is based on projected load factor for projects commissioned in 2030, published in the Electricity generation costs report 2023 - <a href="https://www.gov.uk/government/publications/electricity-generation-costs-2023">https://www.gov.uk/government/publications/electricity-generation-costs-2023</a>.</p>
Homes with rooftop solar PV (GB)	<p>Estimate for 2025 is based on Table 3: Domestic solar photovoltaic deployment by parliamentary constituency, September 2024 - <a href="https://www.gov.uk/government/statistics/solar-photovoltaics-deployment">https://www.gov.uk/government/statistics/solar-photovoltaics-deployment</a><a href="https://www.gov.uk/government/statistics/solar-photovoltaics-deployment">https://www.gov.uk/government/statistics/solar-photovoltaics-deployment</a>. This estimate excludes domestic installations in Northern Ireland.</p> <p>For 2030 estimates, we assume the average installation size is 3.5kW. This is based on the total domestic solar PV installed capacity divided by the total number of installations (rounded to the nearest 0.5kW) in Table 3: Domestic solar photovoltaic deployment by parliamentary constituency, September 2024 - <a href="https://www.gov.uk/government/statistics/solar-photovoltaics-deployment">https://www.gov.uk/government/statistics/solar-photovoltaics-deployment</a><a href="https://www.gov.uk/government/statistics/solar-photovoltaics-deployment">https://www.gov.uk/government/statistics/solar-photovoltaics-deployment</a>.</p>
Jobs supported (Direct and indirect, GB)	<p>The estimate for 2025 is based on the latest ONS Low Carbon and Renewable Energy Economy (LCREE) survey estimates for 2022 - <a href="https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/final/estimates/2022">https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/final/estimates/2022</a> for direct employment and the LCREE indirect estimates, UK, 2015-2022 - <a href="https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/low-carbonandrenewableenergyeconomyysurveyindirectestimatesuk/2015to2022">https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/low-carbonandrenewableenergyeconomyysurveyindirectestimatesuk/2015to2022</a> for indirect employment.</p> <p>The estimate presented here will differ from the total direct and indirect estimate published by the ONS for the Solar sector, as indirect employment is published at UK level only. Therefore, we have taken the direct employment estimates for GB (estimated to be 8,600) and used the latest published ratio of indirect to direct employment (for 2022) to estimate indirect employment at GB level.</p> <p><b>Our methodology for 2030 estimates is presented below this table.</b></p>
Land used (UK-wide)	<p>The estimate for 2025 is based on the recently published Energy Trends: December 2024, special feature article - Land utilised by solar PV – September 2024 - <a href="https://www.gov.uk/government/publications/energy-trends-december-2024-special-feature-article-land-utilised-by-solar-pv-september-2024">https://www.gov.uk/government/publications/energy-trends-december-2024-special-feature-article-land-utilised-by-solar-pv-september-2024</a></p> <p>The total land area of the UK is 24,438,000 hectares. This is published by the ONS in 'Standard Area Measurements for Administrative Areas</p>

(December 2023)'. This is published at:  
<https://geoportal.statistics.gov.uk/datasets/c1aca9d405094d90b63e64b29e6c00b7/about>

#### Estimate for proportion of UK total land used

The figure for 2030 is based on the estimated land utilised by ground-mount solar PV, as a proportion of land area of the UK. Based on the calculated median footprint for operational ground-mount installations published in the Energy Trends article, we have assumed 5.6 acres per MW for existing ground-mount capacity. We have assumed 4 acres per MW for new capacity, based on land area estimates for new projects in the Renewable Energy Planning Database (REPD): <https://www.gov.uk/government/publications/renewable-energy-planning-database-monthly-extract>. There is some uncertainty around this figure given factors including the potential for significant deployment growth in Northern Ireland (not considered part of the 45-47GW Clean Power Capacity Range), and uncertainty around the proportion of commercial installations in future which will be ground-mounted.

Sensitivity-testing has therefore been undertaken to confirm that, based on the above assumption for land use per MW, even in the very unlikely scenario where no progress of rooftop is made and all new capacity is deployed as ground mount, the figure would remain up around 0.4% of total UK land.

## **Methodology for estimating jobs-supported by solar PV in 2030, in a Clean Power-consistent scenario**

### *Summary*

Our 2030 estimate assumes up to 47GW of installed solar PV capacity is deployed by 2030, in line with the upper limit of the Clean Power Action Plan range for solar PV. The capacity range for solar PV outlined in the Clean Power Action Plan is 45-47GW.

The methodology for direct employment is primarily based on research commissioned by ClimateXChange (funded by the Scottish Government) to consider the workforce and skills requirements to support up to 6GW of installed solar PV capacity by 2030 in Scotland<sup>5</sup>. This has been done at sub-sector level (domestic, commercial and large-scale), due to the unique workforce requirements for each sub-sector. The report provides estimated capacity and workforce requirements by year – used to calculate the number of feasibility and construction jobs for capacity added annually, and operational jobs to support total installed capacity.

<sup>5</sup> ClimateXChange Workforce and skills requirements in Scotland's solar industry  
<https://www.climateexchange.org.uk/projects/workforce-and-skills-requirements-in-scotlands-solar-industry/>

There are inherent challenges in forecasting the number of jobs supported in any sector, but particularly for the solar PV sector which has such diverse workforce requirements between the three sub-sectors. The ClimateXChange research focuses on the sub-sector workforce requirements in Scotland only, therefore we're making an implicit assumption that these findings could apply to the rest of GB. Findings are considered applicable across GB as a whole given we do not anticipate any regional differences in the labour intensity required for solar installations and maintenance.

The bottom-up model normalises the jobs required to provide annual estimates, reflecting the short construction period of commercial (<1 year) and domestic PV (<1 week) solar projects - noting that not all jobs will be sustained in the long-term. To account for these model limitations, the final estimates have been compared with other industry and research forecasts and benchmarked against the historic estimates from the ONS Low Carbon and Renewable Energy Economy (LCREE) survey publication<sup>6</sup>.

The export market for solar PV is estimated to be relatively small<sup>7</sup>, therefore we have not made any explicit assumption for jobs supported by exports.

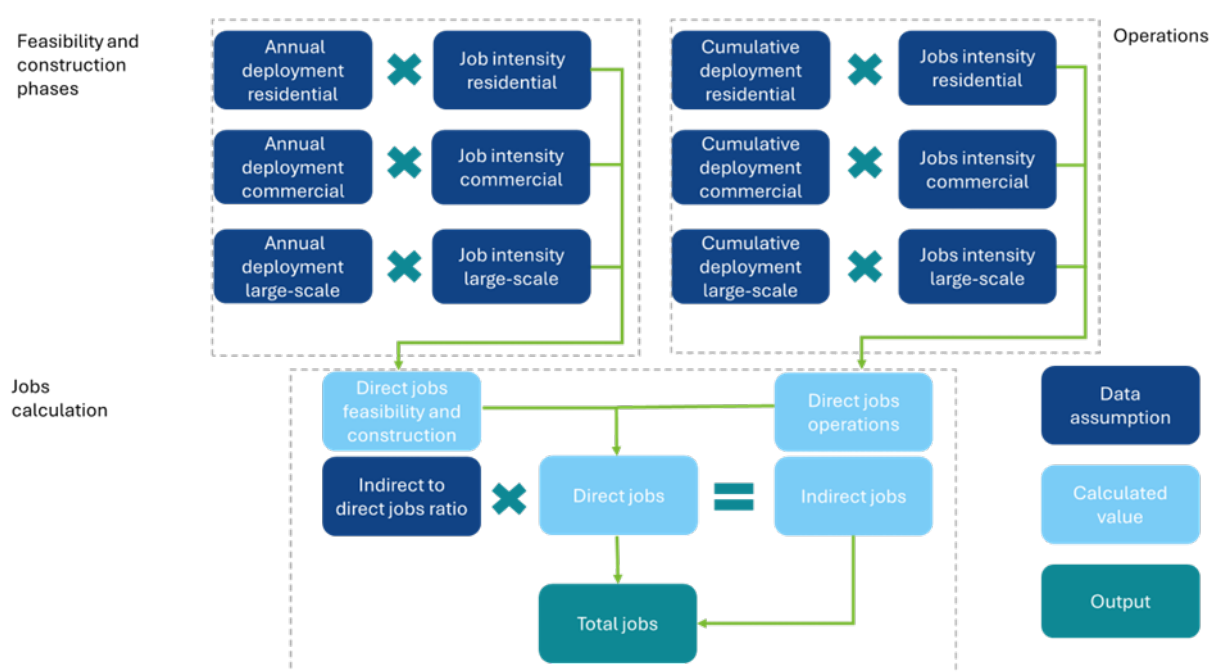


Figure 3 – Solar PV employment estimate calculation process

<sup>6</sup> ONS Low Carbon and Renewable Energy Economy Survey indirect estimates, UK: 2015 to 2022: <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/lowcarbonandrenewableenergyeconomysurvey/indirectestimatesuk/2015to2022>

<sup>7</sup> ONS Low Carbon and Renewable Energy Economy Survey indirect estimates, UK: 2015 to 2022: <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/lowcarbonandrenewableenergyeconomysurvey/indirectestimatesuk/2015to2022>

## *Direct jobs*

### *Step 1 – Back-calculation of jobs-intensity ratios*

Jobs-intensity ratios by sub-sector and project stage have been back-calculated based on the data in Appendix D of the ClimateXChange report, and the relative capacity installations by year in the capacity increase model in Figure 8. For the feasibility and construction stages, FTE per GW added ratios were calculated for each year up to 2030, and then the average ratio was calculated. Similarly, for operations and maintenance, FTE per GW installed capacity ratios were calculated for each year up to 2030, and then the average ratio was calculated.

### *Step 2 – Application of FTE per GW ratios and comparison with ONS LCREE data*

These calculated ratios were applied to annual capacity added (feasibility and construction) and the total installed capacity estimates (operations and maintenance) aligning with the 47GW deployment trajectory up to 2030, for each sub-sector and project stage. After comparison of the final estimates with the historic LCREE data, we opted to use the lower FTE per GW estimate for ground-mount operations suggested by the LCREE data<sup>8</sup> instead.

## *Indirect jobs*

For the indirect employment, the ONS LCREE survey indirect estimates have been used for the solar PV sector to calculate the indirect to direct job estimates ratio<sup>9</sup>. This has then been applied to the direct employment estimates to produce the total figure. ONS have recently reviewed and updated their methodology for producing LCREE indirect estimates, using the UK industry-by-industry input-output analytical tables (IOTs) in their calculations. The revised estimates suggest a significant year-on-year increase in indirect employment since 2020. The (latest) 2022 estimates have been marked as provisional, therefore the latest five year historic indirect to direct job estimate ratio has been calculated and used instead. This is estimated to be 0.7 indirect jobs to 1 direct job (rounded to 1.d.p.).

## *Breakdown of direct and indirect jobs*

Based on the above methodology, we estimate that, at its peak, the solar PV sector in GB could support up to 20,000 direct and 15,000 indirect jobs by 2030<sup>10</sup>.

## *Further considerations*

These sector estimates are intended to provide an indication of the increase in the level of employment in the solar PV sector to support Clean Power by 2030. Employment estimates for the solar PV sector are sensitive to capacity projections by the three sub-sectors; domestic and commercial installation are typically more labour intensive than large-scale installations.

Our estimates are based on one potential deployment pathway for the solar PV capacity required to meet Clean Power by 2030, which does not consider additional policies to facilitate further domestic rooftop deployment and commercial installations. Any changes in our

<sup>8</sup> Table 3 - <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/finalestimates/2022>

<sup>9</sup> ONS Low Carbon and Renewable Energy Economy Survey indirect estimates, UK: 2015 to 2022: <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/lowcarbonandrenewableenergyeconomysurvey/indirectestimatesuk/2015to2022>

<sup>10</sup> Figures are rounded to the nearest 5,000.

assumptions on the proportion of domestic and commercial deployment will have a significant impact on the estimated direct (and indirect) employment.

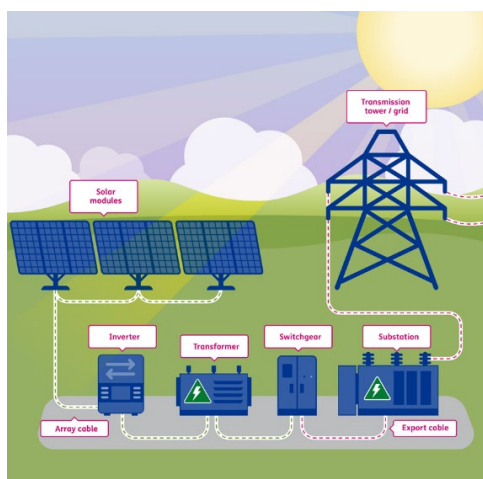


## Annex II – Supply Chain and Innovation

### SUMMARY OF TASKFORCE FINDINGS ON CURRENT STATE OF GLOBAL AND UK SUPPLY CHAINS AND INNOVATION

The information set out in this Annex is based on analysis carried out by Baringa, complemented by the expertise of individual Taskforce members.

#### Overview of solar value chain <sup>11</sup>



Ground-mounted and rooftop solar installations consist of photovoltaic panels mounted on racks or frames and connected by string cables to invertors, transformers, and switchgear. An export cable connects them to the nearest transmission or distribution substation.

For solar panels, two material technologies are the primary constituents: crystalline silicon modules which account for 95% of the global production capacity, and cadmium telluride thin-film rigid PV which makes up most of the remaining 5%.<sup>12</sup> The UK has almost no domestic manufacturing capacity for conventional crystalline silicon solar PV and as such is extremely dependent on global suppliers who, over the last decade, have increasingly moved from Europe, Japan, and the US to China. Significant progress in module cost and efficiency has resulted in China effectively dominating all the manufacturing stages of conventional solar panels (polysilicon, ingots, wafers, cells, and modules), with their overall share now exceeding 80%<sup>13</sup>. Furthermore, the world's 10 top suppliers of solar manufacturing equipment are based in China.

The UK is at the forefront of developing new types of solar modules, such as lightweight and flexible perovskite panels, and tandem module technologies. This can provide the UK with a global strategic advantage if manufacturing can be scaled in the UK.

The International Energy Agency has estimated that for crystalline-silicon solar modules, producing 1GW of module capacity per year could create 1,300 full time manufacturing jobs,

<sup>11</sup> Image Copyright @ Baringa Partners LLP 2024

<sup>12</sup> International Energy Agency (2022). 'Special Report on Solar PV Global Supply Chains.' Available at: [Special Report on Solar PV Global Supply Chains \(windows.net\)](https://www.iea.org/reports/solar-pv-global-supply-chains) (Accessed 21 June 2023).

<sup>13</sup> <https://www.iea.org/reports/solar-pv-global-supply-chains>



although this number will likely be lower in areas with established solar markets due to higher levels of automation and economies of scale.<sup>14</sup>

Other Balance of System (BoS) components for solar mainly consist of transformers, switch gear, invertors, high voltage cabling and steel racking, many of which are also used in the construction of other energy projects such as wind and grid infrastructure. The supply chains for these BoS components have a more diverse geographical spread with key manufacturers located in Europe, Japan, US, India, and China. However, recent research commissioned by DESNZ from Baringa<sup>15</sup>, suggests that bottlenecks in parts of these international supply chains are leading to procurement delays for some components with lead times increasing from 16 to 24 months for transformers and from 4 to 12 months for switchgear. More broadly there is also an electrical steel shortage due to the Ukraine war.

The UK has a significant electrical manufacturing base. Production relevant to solar tends to focus on small invertors and transformers. At present the UK is generally dependent on imports for larger transformers and invertors and HV cables. In the event of supply shortages solar projects would need to compete against grid and offshore wind industries for access to international markets.

Batteries enable us to use energy more flexibly, for example maximising the usable output from intermittent renewable technologies such as wind and solar and helping to balance the grid. Increased demand for utility scale and residential scale batteries has been seen, with residential solar and storage products often installed together. The UK relies heavily on importing batteries and their components, in 2022, the UK imported nearly £1.8 billion worth of lithium-ion battery packs, of which around £0.9 billion came from China, £0.3 billion from Germany, and £0.1 billion from Japan<sup>16, 17</sup>

### *International position*

The global drive to increase solar deployment has seen many other developed countries, introducing policies and incentives to accelerate the reshoring of solar supply chain manufacturing and support innovation. The US Inflation Reduction Act and the EU's Green Deal Industrial Plan were introduced in 2023 to accelerate domestic industrial and technology capability in these countries, including support for solar<sup>18</sup>.

The impacts of these global incentives are uncertain; in the short term it is possible that potential new manufacturers and industry will move away from the UK to take advantage of the support in other countries. However, in the longer term the increased demand and production in other parts of the world can help drive innovation and secure more diverse and transparent supply chains, conditions which are increasingly important for the sponsors and financiers of solar projects.

### *Overview of Solar Innovation*

Innovation can help build and diversify supply chains as well contributing to a range of wider net zero and economic goals. Alongside established solar, there are emerging and innovative technologies which present their own opportunities to supercharge global deployment of solar. The UK is currently driving innovation in flexible perovskite solar modules, silicon/perovskite

<sup>14</sup> <https://www.iea.org/reports/solar-pv-global-supply-chains>

<sup>15</sup> The Baringa 'UK renewables deployment supply chain readiness study' can be found [here](#)

<sup>16</sup> <https://www.gov.uk/Government/publications/uk-battery-strategy>

<sup>18</sup> Recent examples include a €32m EU grant to Midsummer Solar to scale solar module manufacturing in Europe and a \$1bn investment in scaling manufacturing at First Solar in US supported by the IRA. [add links]

tandem modules, evacuated tube PV thermal hybrids, and the development of alternative and/or advanced deployment options such as floating solar and space based solar power. For space applications, the UK is strong in III-V materials<sup>19</sup> growth and the manufacture of radiation hard, cerium doped ultra-thin glass. The UK is also a leader in providing glass substrates coated with a transparent conductor/ buffer layer for thin film Cadmium Telluride and other thin film PV manufacturing.

There is a growing interest in innovative processes for solar recycling, including developing solutions to increase the proportion of a solar module which can be effectively recycled. Artificial intelligence (AI) is already being leveraged to improve the utility of solar as a resource through more accurate forecasting of generation, using a combination of satellite data and live camera feeds of the sky above a solar farm. Other innovations in solar and other technologies beneficial to net zero are currently being funded by DESNZ in the Artificial Intelligence for Decarbonisation Programme.

Smart grids integration is an area where the UK is currently a leader. Data from both generators and consumers is being used to form the basis of dynamic pricing models which will help to minimise the curtailment of renewables, making the transition to Net Zero less costly. Energy suppliers are already offering flexible tariffs which allows for solar and battery owners to minimise their energy costs.

The UK has a strong position in innovative Operations & Maintenance (O&M) activities supporting solar asset managers to monitor the health of their assets. For example, the UK is world leading in the use of rapid drone based thermographic imaging and analysis of large-scale solar utilities. It is also strong in planning and executing utility scale module cleaning.

### *Summary of government finance options*

1) British Business Bank (BBB)<sup>20</sup>: BBB is an economic development bank, wholly owned by the Department for Business and Trade. British Patient Capital (BPC) is a commercial subsidiary of BBB and is a domestic investor into UK venture capital opportunities. With more than £3bn of assets under management, their mission is to enable long-term investment in innovative UK companies through their core funds and co-investment programme. BPC also runs their Future Fund: Breakthrough, a £375M UK-wide programme which encourages private investors to co-invest in high-growth innovative firms. This fund requires a minimum total investment round of £20M where BPC will contribute a maximum of 30% of the funding.

2) The National Wealth Fund (NWF)<sup>[1]</sup>: the NWF was created in October 2024, expanding the mandate of the UK Infrastructure Bank (UKIB) and increasing its capitalisation. It has up to £27.8bn financing capacity to drive investment and growth across the UK in support of the forthcoming Industrial Strategy. The NWF will also continue to invest across UKIB's infrastructure mandate, including clean energy. It can deploy funding across the capital stack, including debt, equity and guarantees, with an indicative minimum ticket size of £25 million for private investment and £5 million for local authority lending. The NWF is actively progressing a number of engagements in the solar space and to date has closed two deals supporting the sector.

<sup>19</sup> III-V materials are alloys containing elements from both groups III and V in the periodic table. They are semiconductor materials with applications in advanced electronics and solar cells.

<sup>20</sup> More information can be found: [British Patient Capital](#)

<sup>[1]</sup> More information can be found: [UK Infrastructure Bank \(ukib.org.uk\)](#)

3) UK Export Finance (UKEF)<sup>21</sup>: UKEF is the UK Government's Export Credit Agency, working with over 100 private credit insurers to help UK companies access export finance – the loans, insurance policies or bank guarantees that enable international trade to take place. Qualifying UK-based projects or companies must have UK export sales that represent at least 20% of the annual sales turnover on average over that last three financial years – this may include UK-based manufacturing of solar panels where part of the offtake is exported outside the UK for example, but support does not necessarily need to be tied to an export contract. UKEF overseas support requires 20% UK content so can boost the UK supply chain in overseas orders.

In 2021, UKEF announced a £217M guarantee to support the construction of Turkey's largest solar facility. The transaction supported over 100 British jobs as the integration of the solar technology and the assembly of the solar power station will occur in the UK.

4) Made Smarter Adoption Programme<sup>22</sup>: The Made Smarter Programme supports the take up of industrial digital technology. Through 'Made Smarter' firms learn how to capitalise on new digital technologies, reduce carbon emissions, and drive-up productivity by offering manufacturing SMEs access to expert advice, digital road mapping, match-funded grants and leadership training.

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<sup>21</sup> More information can be found: [UK Export Finance](#)

<sup>22</sup> <https://assets.publishing.service.gov.uk/media/65788f51095987000d95df34/advanced-manufacturing-plan.pdf>

## Annex III – Stakeholder Mapping and Best Practice for Community Engagement in Solar Projects

### Stakeholder map

The Taskforce have developed a high-level stakeholder map highlighting the key influencers and decision-makers that should be considered when planning solar initiatives across commercial rooftop, residential rooftop and ground-mount sectors. It provides a framework for mapping the diverse groups and communities that have an interest in solar to enable inclusive policy development and effective engagement.

While the stakeholder map is thorough, it is likely that there are others who have not been listed, every case is unique, so the interested parties can be varied. The solar industry should regard it as an evolving exercise which will lead to more effective marketing and communications plans.

Category	Ground mount	Residential Rooftop	Commercial Rooftop
Influencers - <i>those who through their actions and words have the ability to shape the behaviour of relevant actors.</i>	<ul style="list-style-type: none"> <li>• MPs</li> <li>• Local community</li> <li>• Supply chain (panels, transformers, cabling etc.)</li> <li>• Local Wildlife Trust and local conservation/ climate groups</li> <li>• Landowners</li> <li>• Local media</li> <li>• Current and future workforce</li> <li>• Parish councils</li> </ul>	<ul style="list-style-type: none"> <li>• Others with the technology installed</li> <li>• Industry players e.g. EST</li> <li>• Local government</li> <li>• Trade associations</li> <li>• Electricians</li> <li>• DNOs</li> <li>• Energy companies</li> <li>• Non-certified solar installers</li> <li>• Private tenant</li> </ul>	<ul style="list-style-type: none"> <li>• Local government</li> <li>• Tenant/ occupier</li> <li>• Suppliers (panels, transformers, cabling etc.)</li> <li>• Building insurer</li> <li>• Local residents</li> <li>• Future talent/ workforce</li> <li>• Industry bodies (UKWA, CBI etc.)</li> <li>• DNOs</li> </ul>

	<ul style="list-style-type: none"> <li>• Career advisors, education providers and students</li> <li>• Statutory bodies (Environmental Agency, Historic England etc.)</li> <li>• DNOs</li> </ul>	<ul style="list-style-type: none"> <li>• MCS certified solar installers</li> <li>• Finance houses/ lenders</li> <li>• Consumer lifestyle media</li> <li>• Solar housing tenants</li> <li>• Trade media</li> <li>• Press – local, regional, national</li> <li>• Future talent/ workforce</li> </ul>	<ul style="list-style-type: none"> <li>• Current workforce (installers, electricians etc.)</li> <li>• Trade media</li> </ul>
Decision Makers - <i>those who directly control the financial, practical, or legal conditions required to facilitate solar projects</i>	<ul style="list-style-type: none"> <li>• UK Government</li> <li>• National Grid</li> <li>• Councillors</li> <li>• Investors</li> <li>• Planning Inspectorate</li> <li>• Devolved administrations</li> <li>• Local authority planning officers</li> </ul>	<ul style="list-style-type: none"> <li>• UK Government</li> <li>• Consumer buying new build off-plan</li> <li>• Social housing providers</li> <li>• Devolved administrations</li> <li>• New build developers</li> <li>• Self-builders</li> <li>• Local authorities</li> <li>• Homeowners</li> <li>• Landlords</li> </ul>	<ul style="list-style-type: none"> <li>• Devolved administrations</li> <li>• Finance and sustainability directors</li> <li>• Local authority planning officers and executive member responsible for property</li> <li>• Landlords</li> <li>• UK Government</li> <li>• Property developers</li> </ul>

## *Best Practice Communications Strategy for Community Engagement in Ground Mount Solar Projects*

Achieving the UK's net zero target by 2050 requires a substantial transformation in how we power our homes, businesses, and communities. The solar industry presents a promising opportunity to provide locally generated, clean, and affordable energy. As the industry scales up to meet climate and environmental targets, effective community engagement becomes crucial.

We have outlined below a strategy and baseline guidance to support successful engagement practices between the solar industry and local communities throughout the whole lifespan of solar developments, from the inception and planning stages, through to construction, operation and decommissioning.

### Guide to a successful stakeholder strategy

Articulating the Significance of Solar Energy:
<ul style="list-style-type: none"> <li>▪ Highlight the potential for clean, affordable, and locally sourced power.</li> <li>▪ Communicate the importance of solar energy in achieving clean power and net zero goals.</li> </ul>
Community Engagement throughout the Project Lifecycle:
<ul style="list-style-type: none"> <li>▪ Engage communities from the project's inception.</li> <li>▪ Maintain and develop relationships with communities throughout the project's lifespan.</li> </ul>
Understanding the Community:
<ul style="list-style-type: none"> <li>▪ Use stakeholder mapping as a tool to understand the diverse stakeholders within the community.</li> <li>▪ Identify needs – work with the community to understand how a project can add value and bring benefits to its stakeholders.</li> </ul>
Risk of Non-Engagement:
<ul style="list-style-type: none"> <li>▪ Clearly communicate the risks associated with not engaging communities at all stages of the project lifecycle.</li> <li>▪ Highlight potential negative impacts on the project, company, and the solar industry as a whole.</li> </ul>
Commitment to Responsible Community Engagement:
<ul style="list-style-type: none"> <li>▪ Emphasise the solar industry's commitment to being a good neighbour.</li> <li>▪ Ensure that community engagement goes beyond a mere checkbox exercise.</li> <li>▪ Convey the industry's dedication to bringing communities along the solar journey.</li> </ul>

### Best Practice Guidelines for community engagement

Early and Transparent Communication:
<ul style="list-style-type: none"> <li>▪ Initiate community engagement at the project's outset.</li> <li>▪ Emphasise transparency in sharing project details, benefits, and potential impacts.</li> </ul>

<b>Tailored Engagement Strategies:</b>
<ul style="list-style-type: none"> <li>▪ Advocate for customised communication strategies based on the unique characteristics of each community.</li> <li>▪ Recognise and respect cultural, social, and economic differences within communities.</li> </ul>
<b>Two-Way Communication Channels:</b>
<ul style="list-style-type: none"> <li>▪ Promote open dialogue and active listening between developers/operators and the community.</li> <li>▪ Establish accessible and diverse communication channels to gather community feedback (physical and virtual).</li> </ul>
<b>Education and Information Sharing:</b>
<ul style="list-style-type: none"> <li>▪ Provide easily understandable information about solar projects and their benefits.</li> <li>▪ Offer educational resources to address concerns and misconceptions within the community.</li> </ul>
<b>Long-Term Relationship Building:</b>
<ul style="list-style-type: none"> <li>▪ Encourage sustained engagement throughout the project's lifespan and create permanent communication channels to maintain engagement.</li> <li>▪ Foster relationships beyond the immediate project, demonstrating a commitment to the community's well-being.</li> </ul>
<b>Mitigation and Collaboration:</b>
<ul style="list-style-type: none"> <li>▪ Outline strategies for addressing community concerns and mitigating potential negative impacts.</li> <li>▪ Promote collaborative problem-solving between developers/operators and the community.</li> </ul>
<b>Monitoring and Adaptation:</b>
<ul style="list-style-type: none"> <li>▪ Establish mechanisms for ongoing monitoring of community sentiment.</li> <li>▪ Encourage flexibility to adapt communication strategies based on evolving community needs and feedback.</li> </ul>

Effective community engagement is not only a responsibility but a strategic imperative for the success of solar projects and the broader industry. By adhering to these best practice guidelines, developers, companies, NGOs, and charities can build positive relationships, enhance project outcomes, and contribute to the shared goal of achieving a sustainable, net zero future for the UK.

This publication is available from: <https://www.gov.uk/government/publications/solar-roadmap>

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