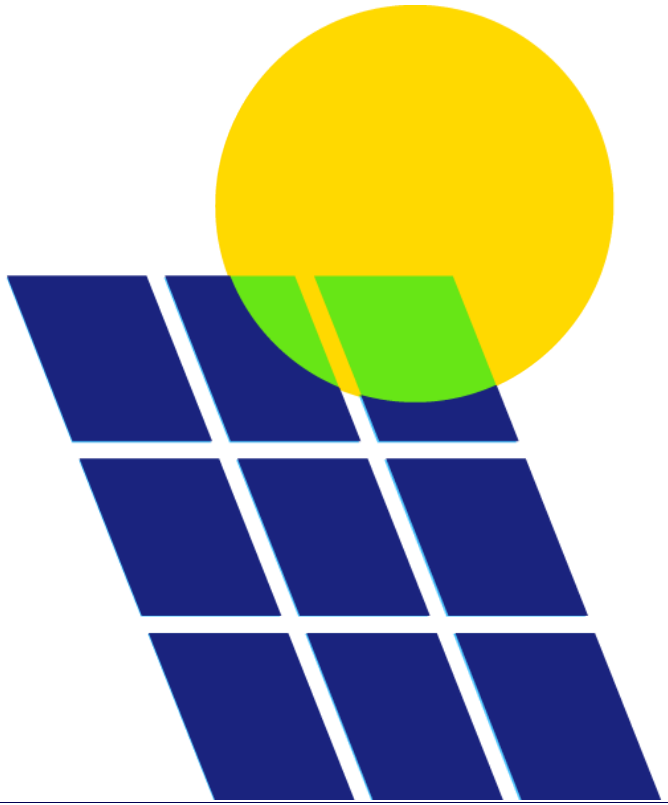
Environmental Audit Committee

Green Jobs Inquiry



About us

Since 1978, Solar Energy UK has worked to promote the benefits of solar energy and to make its adoption easy and profitable for domestic and commercial users. A not-for-profit association, we are funded entirely by our membership, which includes installers, manufacturers, distributors, large scale developers, investors, and law firms.

Our mission is to empower the UK solar transformation. We are catalysing our members to pave the way for 40GW of solar energy capacity by 2030. We represent solar heat, solar power and energy storage, with a proven track record of securing breakthroughs for all three.

Respondent details

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Would you like this response to remain confidential? No

1. What estimates are there for the jobs required to meet the pathway to net zero emissions, by sector, and other environmental and biodiversity commitments?

A significant number of jobs will be required to help meet the pathway to net zero emissions by sector, including the solar sector. For example, National Grid estimates that reaching net zero will require the creation of 400,000 jobs by 2050.[1] The STA's ambition is to enable the deployment of 40 GW of solar power in the UK by 2030 as part of this, a target consistent with the recommendations of the Committee on Climate Change, which recommends the deployment of 54GW of solar by 2035,[2] and the National Infrastructure Commission (NIC), which has recommended 38GW by 2030.[3]

There is significant job creation potential associated with this. For example, there is currently a 13GW pipeline of ground-mounted solar projects in the UK. STA research

[1] https://www.nationalgrid.com/uk/stories/community-spirit/400000-new-energy-workers-needed-power-uk-net-zero
[2] https://www.theccc.org.uk/wp-content/uploads/2019/05/CCC-Accelerated-Electrification-Vivid-Economics-Imperial-1.pdf
[3] https://www.nic.org.uk/wp-content/uploads/Final-Renewables-Recovery-Reaching-Net-Zero.pdf

suggests that this capacity alone if installed could deliver nearly 7,500 jobs.[4] Research conducted by the UK Energy Research Centre, amongst others, indicates that employment is generated across the large-scale solar value chain, with 400-500 jobs created in installation and construction, 200-300 in operations and maintenance, and roughly 100 in advanced manufacturing and R&D for every GW of additional solar capacity.[5]

Further reforms to support the growth of the industry could deliver additional FTE gains. We have long urged that the current business rates regime be reformed to no longer disproportionately disadvantage onsite solar and storage assets, and these reforms if implemented could deliver an additional 2,600 FTE / year.[6] Similarly, the domestic rooftop solar sector has delivered a clear V-shaped recovery from the Spring 2020 national lockdown: more than 35,000 solar PV systems were certified as being installed in 2020 by industry body the Microgeneration Certification Scheme, demonstrating the viability of the industry in its first full year as a subsidy-free technology. There are already a million homes with solar power in the UK, and so there is major FTE potential in supporting the uptake of solar to reach the STA target of 4.4 million solar homes by 2030. This would also deliver significant benefits to the electricity grid, as outlined in STA research.[7]

2. Does the UK workforce have the skills and capacity needed to deliver the green jobs required to meet our net zero target and other environmental ambitions (including in the 25-year environment plan)?

The UK has many factors which can help it reach net zero: industrial and engineering expertise, an advanced electricity grid with the potential to integrate significant distributed and renewable generation capacity, and a vibrant and innovative renewable technology sector committed to meeting the challenge. However, there are policy and other barriers to this happening.

For example, some of our members have raised concerns about the availability of skilled labour (including as a result of the UK's exit from the European Union), and have called for additional help. The government can directly support the pipeline of skilled labour needed to deliver the energy transition by providing funding for training schemes and apprenticeship programmes, tailored to the specific needs of the emerging electrical engineering and technology infrastructure which will be required to deliver the large expansion of renewable generation capacity coming on stream.

As with all policy intended to support green business growth, any such schemes should last for several years as a minimum, so that decision making takes place in a

[4] At 0.57 FTE per MW. See https://www.solar-trade.org.uk/wp-content/uploads/2020/06/STA-Policy-Paper-Priorities-for-a-Renewable-Recovery-Package-June-2020.pdf
[5] https://ukerc.ac.uk/publications/low-carbon-jobs-the-evidence-for-net-job-creation-from-policy-support-for-energy-efficiency-and-renewable-energy/
[6] https://www.solar-trade.org.uk/wp-content/uploads/2020/11/Letter-to-Rt-Hon-Rishi-Sunak-RE-Business-Rates-and-Renewable-Energy-.pdf
[7] Smart-Solar-Homes.pdf (solar-trade.org.uk)

stable environment. This is particularly important in light of the disruption caused by Covid-19.

3. What needs to be done to ensure that these skills and capacity are developed in time to meet our environmental targets?

The UK should engage in long-term policy planning consistent with its employment goals. To ensure that capacity is developed in a sustainable way, this needs to include careful consideration of the way in which support to clean power generation is designed, to ensure a stable business decision-making environment, and hence confidence in job creation.

For example, we recommend careful consideration of lessons which can be learned from the Green Homes Grant (GHG) scheme, for which solar thermal projects are eligible, and PV as part of the local authority element of the scheme. Our members shared concerns with us about the initial version of this scheme, which sought to spend £2 billion in six months, with an abrupt end to funding after this. The cut-off point meant that solar and other installers would only have had a very short window in which to recruit and train new staff to handle the delivery of projects eligible under the scheme, cover their administrative costs, and deal with inquiries, all of which need home visits, quoting and careful support to customers. This would be a major disincentive for any business to take on staff, and hence to build long term skills and capacity.

The GHG has now been extended until 2022, which we welcome. We suggest that it be extended until at least 2023, and that it also be expanded to support the deployment of all zero carbon retrofitting options in homes, including solar PV and energy storage. This would allow installers to invest in their workforce and create jobs, building a sustainable domestic renewable energy sector.

We would note that the development of policy for onsite generation such as solar is closely connected to the construction sector, including new-build homes in particular. The government should ensure that strong, predictable building regulations support the decarbonisation of homes and the market for the skills and capacity created by the clean energy sector. Our recommendation is that new regulations introduced as part of the Future Homes Standard (FHS) under development include bold targets to increase the energy efficiency of new homes. As a minimum, the FHS should incorporate the ‘Option 2’ objective initially detailed. This would entail a minimum 75-80% uplift in the efficiency of new homes by 2025.

As part of this work, there should be a major consultation with industry on designing a long-term scheme for retrofitting homes and businesses in line with net zero, out to 2030. This should integrate government grants with incentives for green mortgages, rolling out smart metering, EV charging, and Ofgem regulation on network upgrading.

The government should also ensure that green technologies compete on a level playing field with other generation assets. At present, renewable generation technologies such as solar power can be subject to unfair policy treatment. A good example is battery storage, which, when installed as a standalone technology, does

not qualify for the reduced 5% VAT rate applicable to other energy saving technologies.[8] Our members have consistently called for this to be rectified, which would help decarbonise the UK's housing stock and develop a domestic residential energy storage sector.

Similarly, since 2017, businesses installing onsite solar have faced a 600-800% rise in business rates. This has prevented many commercial rooftop solar installations from proceeding, which would otherwise reduce both carbon emissions and costs for businesses seeking to grow as part of the recovery from COVID-19, and expand the commercial rooftop solar industry. Solar and storage projects should be excepted from business rates, as gas-fired Combined Heat and Power installations are. This would stimulate business investment in renewables, and the skills, capacity and jobs associated with the solar supply chain.

4. What measures should the Government take to ensure that its proposals to meet environmental targets do not by default lead to jobs in affected industries being exported?

Contrary to jobs being exported, the UK has the opportunity to ensure the solar supply chain delivers a range of skilled jobs in the UK, and potentially also supports the sale of goods and services by British businesses abroad. For example, STA research analysis of member installations has shown that around two-thirds of the value of domestic rooftop solar PV accrues to the UK, broadly consistent with international analyses. For ground-mounted projects, there is the potential to provide up to 90% UK value over the lifetime of a solar farm by 2030, given a stable policy framework, while solar thermal installations can provide almost entirely UK content.

This is because the majority of the value of the solar supply chain is downstream sectors in which the UK already has established and competitive businesses: in technology installation, electrical engineering, operations and maintenance, civil works, cabling and grid connections, consulting, project management, software design, roofing works, finance and legal services, design, research and development, and smart systems integration.

5. What risks are there to meeting the Government's ambitions for green job creation in both the public and private sectors? What should the Government do to create the conditions to ensure its commitments are met by both sectors?

Our major recommendation is that the Government should provide a detailed strategy to ensure that its high-level commitments are accompanied by a clear plan for how they will be met. The strategy should include a target for the total deployment of solar capacity in the UK and the jobs which this would deliver as a result. Our ambition is to enable the installation of 40 GW of capacity by 2030, which we would recommend for the target. The strategy should also include the development of a specific solar policy which identifies the barriers to increasing the deployment of domestic rooftop,

[8] See, for example, https://www.r-e-a.net/wp-content/uploads/2020/12/Joint-letter-Fair-Treatment-for-Home-Energy-Storage-1.pdf, signed by Solar Energy UK (as the Solar Trade Association).

commercial rooftop, and ground-mounted solar systems, and how these can be overcome.

This should be tailored to the public as well as private sectors. For example, Point 7 of the Ten Point Plan for a Green Industrial Revolution notes the need to make homes, schools and hospitals greener.[9] A key way to do this is through the onsite generation of electricity, such as through solar power. And there has been welcome support for this, such as the October 2020 launch of the Public Sector Decarbonisation Scheme, for which solar projects are eligible.[10] But this should form part of a broader strategy, with clear targets and key performance indicators, for how public infrastructure can be decarbonised, in the context of the broader economy. In this instance, our recommendation is to set the objective of ensuring that 100% of the electricity demand of the Government's Civil Estate is met through procuring additional renewable energy generation capacity by 2030. Clean Power Purchase Agreements developed as existing energy procurement contracts end would allow for the deployment of additional renewable generation at no upfront cost to the Government.

6. Are the Government's ambitions for green job creation in the public and private sectors sufficient for the scale of the challenges? What changes should be made?

The Government's ambitions should go further. As in our response to question five, our recommendation for how to do this is for the Government to publish a detailed strategy for solar power which includes a jobs target. The solar market is already delivering for consumers and businesses across the UK, and would respond well to an ambitious target, backed by policy, to do more to create employment, reduce carbon emissions, and support a green recovery from Covid-19.

7. How can the UK ensure jobs are created in areas most impacted by the transition to a low-carbon economy?

The distributed nature of onsite generation technologies means there is the potential to support green jobs around the UK. One of the advantages of the modular nature of a solar project is that the supply of power can be brought closer to the demand for it, and so solar projects deliver jobs directly tied to the local area during both the construction and operational phases of their lifetime. Because, for example, large scale solar farms can be situated in rural areas, this is one mechanism through which the government can help delivered skilled technology jobs in areas which may not traditionally be associated with them.

The Government should create a detailed regional strategy that takes account of this, and the potential to take advantage of other geographical factors. For example, Scotland currently has a disproportionately low share of solar power generation, accounting for only 3% of the UK's installed solar capacity, despite advantages such as lower land costs. This means that new jobs in solar in Scotland could, for example,

[9] https://www.gov.uk/government/news/pm-outlines-his-ten-point-plan-for-a-green-industrial-revolution-for-250000-jobs
[10] Public Sector Decarbonisation Scheme (PSDS) - GOV.UK (www.gov.uk)

support the transition of some workers from its oil industry, the engineering expertise of which could also contribute to the development of new technologies, such as floating solar.

8. What additional interventions should be undertaken to aid in a 'just transition'?

A major short-term priority should be to ensure that the Department for Business, Energy & Industrial Strategy (BEIS) implements a Contracts for Difference (CfD) regime which maximises solar deployment, including a sufficient Pot 1 Budget, regular six-month auctions, and no, or sufficiently high, capacity caps. Solar is capable of delivering substantial additional capacity through this mechanism, and, because it is the lowest cost generation technology, can provide income to the CfD scheme to cross-subsidise other technologies, thereby diversifying the UK's renewable generation mix further. The design, budget share, and administration of Pot 1 auctions should reflect the level of solar deployment required to meet net zero and the clear evidence that the solar industry can deliver the capacity needed at the lowest cost to consumers.

9. What impact can green jobs have on the wider UK economy?

We understand the overall climate strategy of the government as being to decarbonise electricity generation, and then support the electrification of transport and heating. This will imply wide impacts across the economy, and so the development of green jobs ought to support the broad development of business activity in the UK.

10. What contribution can green jobs make to the UK's economic recovery from Covid-19?

Consistent with the responses above, green jobs in solar and other renewable energy technologies can make a significant contribution to the UK's economic recovery from Covid-19.

11. How can the UK ensure high emissions are not locked-in when tackling unemployment?

Solar is a clean technology which is helping to reduce the UK's carbon emissions. In addition to this, it can also deliver local environmental improvements. Solar parks can increase biodiversity on site and contribute to natural capital benefits. These include water management and flood prevention, better air quality, sustainable agriculture, and soil regulation. Supporting the development of solar technology will therefore help ensure that emissions are *lowered* as a result of tackling employment, as well as enhancing the broader environment.