

The state as first customer: solar and batteries on every public roof

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The state as first customer: solar and batteries on every public roof

The roofs the state already owns are an order book big enough to start a British solar industry.

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THE ASK

That a statutory programme puts solar generation and proportionate battery storage on every suitable public building, with schools and the health service estate completed by the end of 2028 and the full estate by 2030, and that every contract under it carries an apprenticeship requirement.

The United Kingdom pays a heavy price for importing its energy. When the Organisation for Economic Co-operation and Development (OECD) measured the economic damage of the Iran conflict in Mar 2026, the UK took the largest growth downgrade of any Group of Twenty economy, and the OECD's recommendation in the same report was to cut fossil fuel import dependence.^[1] Every roof that generates its own power cuts that dependence a little. The UK has around 30 million homes,^[2] a public estate of schools, hospitals, offices and depots with acres of unused roof, and no industry at the scale needed to fit either.

The technology is mature and the capital is available. What the country lacks is an installation workforce, a supply chain and domestic manufacturing depth, and none of the three will appear while demand arrives as a trickle of individual household decisions. An installer will not train an apprentice for a pipeline that might exist. A manufacturer will not build a factory on a policy aspiration. Both commit on the strength of a contracted order book, and the state controls one large enough to change the industry.

The proposal

A statutory programme should commit the government to installing solar generation and proportionate battery storage across the entire public estate: central government buildings, the National Health Service (NHS) estate, defence sites, local authority buildings, and every school and further education college with a suitable roof.

The dates should be phased so the industry can grow into them. Schools and the NHS estate come first, completed by the end of 2028; the remainder of the estate follows by 2030. Phasing matters because the installation workforce the programme needs does not yet exist, and the early phase is what trains it. A single hard deadline across the whole estate would be missed, or met with rushed work that wastes the money.

The commitment needs defined edges, written into the statute at the start. Listed buildings, structurally unsuitable roofs and sites waiting for grid reinforcement are scheduled or exempted explicitly, so the difficult cases cannot stall the whole. Proportionate storage means batteries sized to shift each building's generation into its hours of use, so a village primary and a district general hospital get different specifications. Buildings the state occupies but does not own are brought in through landlord agreement at lease renewal, with the running-cost saving shared as the inducement.

Who builds it

The installation workforce does not exist yet, and the order book is what calls it into being. That gives the state a choice most customers never get, over who the new trade is built from. The number of young people in the United Kingdom not in education, employment or training passed one million in the first quarter of 2026.^[3] Solar installation is a trade whose apprenticeship door is open to people without prior qualifications, the work arrives on roofs in every part of the country, and the state is the customer, so it can set the terms of entry.

The terms have to be designed against the ways such clauses fail. Every contract under the programme requires a set share of its on-site labour hours to be delivered by apprentices. Hours are the right measure for work that is short and hardware-heavy. The per-pound formulas transport procurement has used since 2016 assume long contracts with large site workforces, and a completion test cannot be scored on a contract that finishes in weeks.^[4] Recruitment does not sit with the contractor. The programme runs a shared scheme that employs the apprentices, recruits through Jobcentre Plus and local authority youth services with places reserved for people out of education and work, and places them with contractors job by job. Construction has run shared schemes on this model since 2012, at small scale, and the ones that failed, failed on funding, so the scheme is financed as programme infrastructure rather than left to pay its own way.^[5] Completion and retention are measured for the programme as a whole and published annually, because a three-year apprenticeship outlives any single contract.

One piece is missing from the shelf. No solar installation apprenticeship standard yet exists, so commissioning one is the programme's first task, with apprentices training on the adjacent electrical standards until it arrives. The phasing then works in the apprentices' favour. A cohort that starts on the schools phase completes into the second phase, and into the private demand the companion measure below pulls in behind it.

The numbers stay modest against the million. The whole British solar industry supported around 17,500 full-time-equivalent roles in 2022, and the government's roadmap sees up to 35,000 across Great Britain by 2030, so a programme on this scale carries thousands into the trade, not

hundreds of thousands.^[6] The value of the clause is the route it opens. The state lets contracts across construction, retrofit and grid work on the same terms, and a clause proven on this order book travels to the others.

What the country gets back

The same commitment pays back three ways.

The public estate takes a permanent cut in its energy bills, a direct saving on money the taxpayer already spends every year, and the timing fits where the programme starts, because schools and hospitals generate through the working day and the summer holidays, exactly when solar produces most, with storage carrying it into the evening peak.

The order book creates the demand certainty that justifies training, tooling and factory investment. The benefit lands on every household that later wants panels, as lower unit costs and shorter installation queues.

The apprenticeship clause makes the wage bill do double work, funding the installation and opening a route into a trade for young people currently outside education, employment and training.

The programme also buys something harder to price. The state has already begun, because Great British Energy is fitting solar to hundreds of schools, NHS sites and defence sites, with 245 schools and colleges completed by Jul 2026.^[7] A government asking households and businesses to adopt solar needs its own estate to lead, and what the start lacks is not intent but scale and dates. A statute supplies both, and turns every completed school roof into an advertisement.

A companion measure would pull the private market along at the same time. A council tax discount for homes that install qualifying generation and storage, with an equivalent business rates discount for commercial premises, would shorten payback periods and bring forward the installations the industry needs to keep its new workforce busy. The framing should be national security. The OECD's own recommendation is to cut fossil fuel import dependence,^[1:1] and energy security holds a broader political coalition across election cycles than the environmental argument does.

Objections

The estate programme costs money the Treasury does not have. The spending buys an asset that repays itself through bills the state already pays every year, so it belongs in the capital column with a measurable payback period. The alternative on the table is to carry on buying the same electricity at retail prices forever.

The industry cannot deliver it. Today it cannot, which is what the programme is for. The phased order book makes training and capacity investment rational for private firms, and the apprenticeship clause converts the order book into people on a precedent transport

procurement has already run. Demanding proof of capacity before creating the demand gets the causation backwards.

Apprenticeship quotas produce box-ticking. They do where the metric is enrolment and the employer marks its own homework. Here the intake is recruited by the scheme rather than the contractor, the requirement is counted in hours on the roof, and completion and retention are published for the programme as a whole. A contractor cannot enrol for the bid and release after it, and cannot pick the most job-ready intake and call it outreach.

Batteries make it too expensive. Generation without storage saves less, because public buildings cannot always use power when the sun supplies it. Proportionate sizing keeps the cost tied to each building's actual usage pattern, and the statute defines the sizing rule so nobody gold-plates it.

It will get stuck on the hard cases. It will, if the hard cases are left inside the commitment. Explicit scheduling and exemption for listed buildings, unsuitable roofs and grid-constrained sites keep them outside it, so the programme is judged on the large deliverable middle.

SOURCES

1. OECD, interim Economic Outlook, 26 Mar 2026. UK growth downgraded 0.5 percentage points to 0.7% for 2026, the largest downgrade of any G20 member in that edition; the report's policy recommendation was to reduce fossil fuel import dependence. ↩ ↩
2. Office for National Statistics, dwelling stock estimates for the United Kingdom. ↩
3. Office for National Statistics, Young people not in education, employment or training (NEET), UK: May 2026, released 28 May 2026. An estimated 1,012,000 people aged 16 to 24, 13.5% of the age group, were not in education, employment or training in Jan to Mar 2026. The series is classified as official statistics in development. ↩
4. Crossrail's contracts required one strategic labour needs and training output per £3m of tendered value, at least half of them unemployed job starts or new apprenticeships, and the Department for Transport committed Highways England, Network Rail, HS2, Transport for London and Crossrail in Jan 2016 to one apprenticeship per £3m to £5m of contract value or an equivalent year-on-year increase. The Social Value Model scores apprenticeship opportunities created under a contract (Procurement Policy Note 002, mandatory for central government from 1 Oct 2025; its successor, PPN 026 of Aug 2026, raises the minimum weighting from Jan 2027), though those rules bind central departments rather than the whole public estate, which is one reason the requirement belongs in the statute. ↩
5. The Construction Industry Training Board took shared apprenticeship schemes national in Nov 2012. The schemes recruit and employ apprentices and place them with firms that cannot commit to the full term of an apprenticeship; the largest current scheme, Cyfle Building Skills in Wales, employed around 95 apprentices in mid 2025. ↩
6. Department for Energy Security and Net Zero, Solar Roadmap, 30 Jun 2025. Around 9,000 direct and 8,500 indirect full-time-equivalent roles in 2022, with up to 35,000 direct and indirect jobs across Great Britain by 2030. The roadmap notes that existing apprenticeship standards "are not solar-specific", with a trailblazer group and Skills England exploring new sector-based apprenticeships in England. ↩
7. Great British Energy solar programme, around £255m across roughly 250 schools, over 270 NHS sites and 15 defence sites (GOV.UK, Oct 2025). By 16 Jul 2026, 245 schools and colleges had panels installed, with a further 100 schools and a 150-school pilot announced. ↩

CHANGE HISTORY

Rev. B, 25 Aug 2026. Added the workforce section: an apprenticeship share of on-site labour hours in every programme contract, recruitment held by a programme-level shared scheme through routes reserved for young people out of education and work, and completion published at programme level. The ask now carries the requirement, the live Great British Energy scheme is named, and the opening's account of the OECD finding is corrected.