ARKHITEKTON
ENERGY
The Arkhitekts of Global Change

UTILITY AND URBAN SOLAR · 25 MW TO 80 MW

Arkhitekton Energy Solar Power

Ground-mount solar farms, rooftop and carport PV and solar-plus-storage hybrids. Fully funded, built turnkey and run in a 50/50 joint venture with the landowner – with £0 capital from the land.



25–80 MW
utility-scale capacity range

~2.5 ac
of land per MW

85%
of build funded by the EPC partner

£0
capital from the landowner

THE TECHNOLOGY

What a solar scheme looks like

The technology we fund, build and operate – and how a typical Arkhitekton Energy scheme is laid out on site.



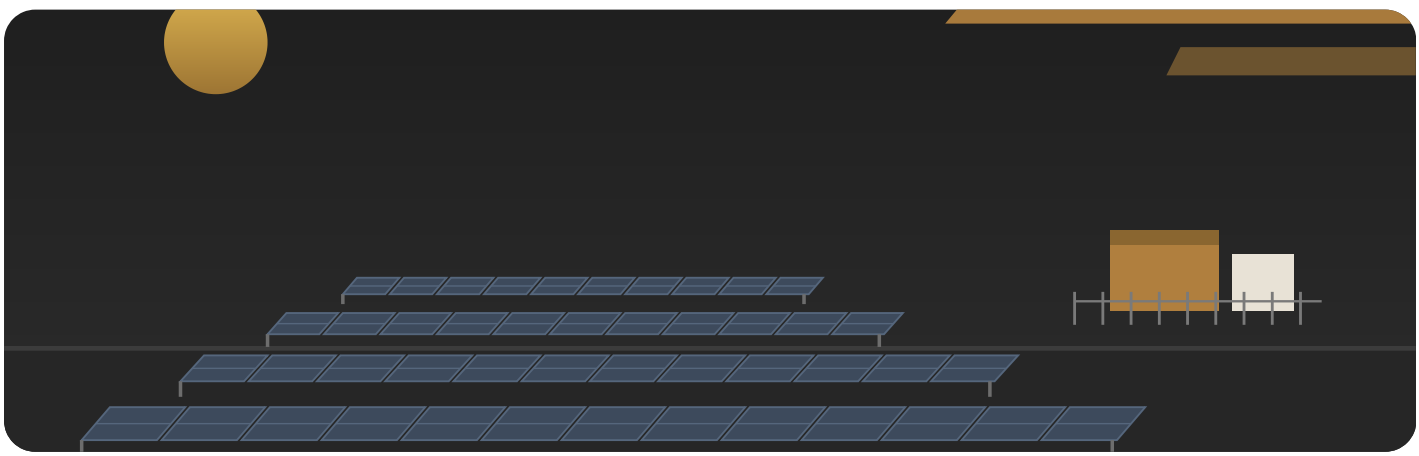
Ground-mount arrays on a grazed field



Aerial view of fixed-tilt rows



Bifacial modules on a tracker row



Typical solar scheme layout – Arkhitekton Energy illustration

WHY SOLAR, WHY NOW

The UK needs to almost triple its solar fleet

The government's Clean Power 2030 Action Plan sets a range of 45–47 GW of solar by 2030, against about 18 GW in place when it was published in December 2024. Grid connection reform is now moving ready-to-build projects to the front of the queue – so sites with land secured and planning in hand are worth more than ever.

45–47 GW
solar capacity needed in GB by 2030

~18 GW
installed when the plan was published

~1,000
MWh a year per MW on a good UK site

35+ yrs
design life of a modern solar farm

What makes the Arkhitekton approach different

- **Fully funded** – our EPC partner finances 85% of the build; the 15% balance is guaranteed
- **Joint venture with the landowner** – a 50/50 project company, land secured at Heads of Terms
- **Fixed-price turnkey EPC** with a UK Tier 1 civils partner and a full bond package
- **Storage-ready** – every layout reserves space and grid capacity for a co-located battery

Who it is for

- **Farmers and estates** with 60–200 acres of lower-grade land
- **Industrial and logistics sites** with large roofs and daytime demand
- **Councils and public bodies** with brownfield land or depots
- **Corporate buyers** looking for a long-term power price

THE ARKHITEKTON FUNDING MODEL

85%
of the build financed by our EPC partner

15%
from a UK funding partner, guaranteed in full

50/50
joint venture with the landowner

£0
capital or borrowing for the landowner

For the landowner

Long-term, index-linked rent and half the profit – with no capital, no borrowing and no development risk.

For funders

Fixed-price EPC, URDG 758 guarantees, insurance and step-in rights – structured for institutional due diligence.

For offtakers

Long-term, price-certain solar power through a corporate PPA or private wire, with REGO-backed green credentials.

Sources: DESNZ Clean Power 2030 Action Plan (Dec 2024); pv magazine; Carbon Brief. Yield is site-specific.

THE RANGE

Four ways to put solar to work

Every scheme is modelled on site-specific irradiance, grid headroom and planning context before a term sheet is issued.

Typology	Capacity	Footprint	Connection	Revenue	Typical site
Rooftop and carport	0.1–5 MW	Existing roofs	LV / 11 kV	Private-wire supply	Warehouses, campuses, NHS
Small solar farm	5–25 MW	15–60 acres	11–33 kV	PPA and export	Farmland, brownfield
Utility solar farm	**25–80 MW**	**60–200 acres**	**33–132 kV**	**Corporate PPA or CfD**	**Large rural estates**
Solar plus battery	25–80 MW + BESS	+1–5 acres	Shared connection	PPA plus flexibility	Grid-constrained sites

Inside every project

MODULES

- Tier 1 bifacial modules
- 25–30 yr performance warranty
- Fixed tilt or single-axis tracking

ELECTRICAL

- String or central inverters
- On-site substation and switchgear
- SCADA and remote monitoring

SITE

- Security fencing and CCTV
- Sheep grazing or wildflower meadow
- Hedgerow and habitat planting

GRID

- Network operator connection
- Export limitation where needed
- Space reserved for BESS

From bare field to metered output

1
Survey
Irradiance, topography, land grade and ecology.

2
Design
Layout, cable routes, substation and screening.

3
Consent
Planning, grid offer and any environmental assessment.

4
Build
Piling, mounting, modules, inverters, substation.

5
Operate
Monitoring, cleaning, vegetation and repairs.

SITING AND THE LANDOWNER

Land that earns more than it does today

Solar sits alongside farming: sheep can graze between rows and the land returns to agriculture at the end of the term. We look for lower-grade land close to a grid connection point.

Farmland and estates

Grade 3b–5 land, gentle south-facing slopes and a nearby 33 kV or 132 kV line.

Brownfield and landfill

Capped landfill, former airfields and industrial land where solar is often the best after-use.

Roofs and car parks

Large warehouse, campus and retail roofs with daytime power demand on site.

What we look for

Criterion	What works	Why it matters
Land area	60–200 acres for 25–80 MW	Roughly 2.5 acres per MW including margins
Land grade	Grade 3b, 4 or 5 preferred	Protects the best farmland and eases planning
Grid	Within 2–5 km of a substation	Connection cost and timing drive viability
Planning	No landscape or heritage designation	Lower risk and faster consent
Access	Road access for HGV deliveries	Construction traffic and maintenance

The joint venture with the landowner

- **Heads of Terms early** – land secured by lease or purchase before the project is funded
- **50/50 project company** – the landowner and Arkhitekton Energy share net cash after costs, debt and tax
- **Index-linked rent** of around £1,000 an acre from the start of construction
- **Farming continues** – grazing, and full reinstatement at the end of the term

Planning and consents

- Planning permission from the local authority (NSIP route for the largest schemes)
- Network operator connection offer and agreement
- Ecology, landscape, glint and glare and flood risk assessments
- Biodiversity net gain of at least 10% in England
- Decommissioning plan agreed with the planning authority

FUNDING AND RETURNS

85% EPC finance, 15% equity, 50/50 with the landowner

The same funding model as every Arkhitekton Energy programme. Our EPC partner finances 85% of the project cost, repaid from project revenue. The remaining 15% is provided by a UK funding partner and covered in full by an advance payment guarantee.

Size	Project cost	EPC finance (85%)	Equity (15%)	Value to landowner a year	Landowner share, 30 yrs
25 MW	£14.0m	£11.9m	£2.1m	£81k	£18.7m
40 MW	£22.0m	£18.7m	£3.3m	£0.15m	£30.2m
60 MW	**£31.8m**	**£27.0m**	**£4.8m**	**£0.27m**	**£46.0m**
80 MW	£41.6m	£35.4m	£6.2m	£0.40m	£61.9m

60 MW – first full year of operation

£4.50m
revenue

£3.03m
EBITDA after operating costs and rent

£2.78m
EPC finance debt service

£0.25m
net cash, split 50/50

~17%
equity IRR, payback ~10 years

What the landowner receives

- **50%** of net distributable cash every quarter, open-book
- **£0.15m a year** land rent (about £1,000 an acre), index-linked
- Cash share rises to about **£2.22m a year** on a 60 MW once the EPC loan is repaid
- **Biodiversity net gain** and land stewardship managed by the project company
- No capital, no borrowing, no development risk for the landowner

Protections

- Fixed-price turnkey EPC with a UK Tier 1 civils partner
- **URDG 758** advance payment guarantee covering the 15% in full, plus performance (10%) and warranty (5%) guarantees
- Contractors' all-risks and third-party liability during the build
- Funders' step-in rights and a decommissioning reserve from year 10
- Option for the landowner to buy the plant at market value at the end of the term

Indicative base case: 1,000 MWh a year per MW, PPA plus REGO at £75/MWh, 0.4% annual degradation, 30-year term. EPC finance 6% over 15 years; costs and revenue indexed at 2.5% a year. Subject to survey, planning, grid and offtake contracts.

EPC AND DELIVERY

Built turnkey, run by a UK operator

One fixed-price contract covers design, modules, inverters, substation and grid works. A UK operator runs the farm for the full term, with availability and output guaranteed.

EPC partner

China Haisum Engineering, part of China Poly Group and our primary EPC partner, designs, procures, builds and commissions the plant on a fixed-price turnkey contract – and provides 85% of the project finance.

UK Tier 1 civils partner

Groundworks, foundations, access, drainage, HV works and grid connection, built to UK standards inside the EPC contract price.

UK operator

A UK asset manager monitors the farm 24/7 and runs cleaning, vegetation management, inspections and repairs with local contractors.

How a site is delivered

1. **Survey** – Site, grid, land grade and ecology screen.
2. **Contract** – Heads of Terms, JV and fixed-price EPC.
3. **Build** – Piling, mounting and modules – about 6–9 months on site.
4. **Connect** – Substation energised and grid tests passed.
5. **Operate** – Output from day one; income shared quarterly.

Performance guaranteed

- Performance ratio and availability guaranteed by the EPC partner for the first years
- Module and inverter warranties from Tier 1 manufacturers
- Insurance-backed output cover where funders require it
- Defined response times for faults and repairs

Reporting

- Live dashboards for the landowner, funders and offtakers
- Quarterly open-book management accounts for the project company
- Annual independent performance and ESG audit
- Lender-pack reporting to institutional standards

TYPICAL PROGRAMME

12–24 months to energisation

From signed Heads of Terms. Grid connection dates are set by the network operator and can extend the programme.

NEXT STEPS

Turn your land into a solar farm

Send us the location, acreage and any planning or grid information you have. We will come back with a site screen and an indicative income range.

1

Site screen

Land, grid headroom, planning status and irradiance and land grade.

2

Heads of Terms

Lease or purchase agreed and the joint venture with the landowner signed.

3

Pre-app and grid

Planning pre-application, permits and network operator connection offer.

4

Sign and close

EPC contract, funding and guarantees in place; build starts.

Who we are looking to hear from

- Landowners and estates with 60+ acres near a grid connection
- Developers with consented sites looking for funding and an EPC partner
- Councils and public bodies with land or large roofs
- Corporate energy buyers looking for a long-term solar PPA

Also from Arkhitekton Energy

- **UD Series** modular Data Centres, 250 kW to 2 MW
- **UE Series** gas turbine generators, 2 MW to 112 MW
- **Waste to energy** – CFH green methanol, plastic recycling and EfW
- Solar, battery storage, wind, floating solar, hydro, hydrogen, bioethanol and biomass

Talk to Arkhitekton Energy

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All figures are indicative and do not form an offer or a financial promotion. Projects are subject to survey, planning, grid connection, funder approval, contract and financial close.