ARKHITEKTON
ENERGY
The Arkhitekts of Global Change

ONSHORE WIND · SINGLE TURBINE TO 30 MW CLUSTER

Arkhitekton Energy Onshore Wind

Single-turbine and small-cluster onshore wind, with wind data, planning, community engagement and grid connection inside one fully funded joint venture with the landowner.



2.5–30 MW
single turbine to small cluster

~30%
typical UK capacity factor

85%
of build funded by the EPC partner

£5,000
per MW a year to the local community

THE TECHNOLOGY

What a onshore wind scheme looks like

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



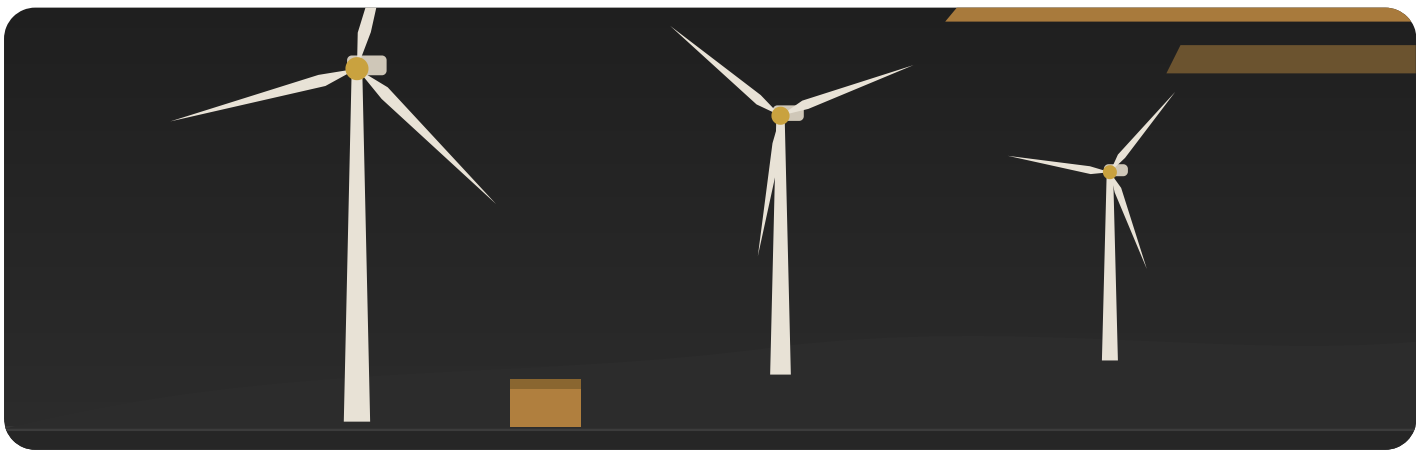
Turbines alongside working farmland



Modern 3–5 MW class turbines



Small cluster on arable land



Typical onshore wind scheme layout – Arkhitekton Energy illustration

WHY ONSHORE WIND, WHY NOW

Onshore wind is back in England

Onshore wind is one of the cheapest sources of new power in the UK. Planning rules in England were changed in 2024 to treat it like other infrastructure, and the Clean Power 2030 Action Plan calls for 27–29 GW across Great Britain, at least 8 GW more than today.

27–29 GW
onshore wind needed in GB by 2030

+8 GW
new capacity needed by 2030

£5,000
per MW a year community benefit (England guidance)

25–30 yrs
turbine design life

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
- **Community first** – benefit funds and local investment built into every project company

Who it is for

- **Upland and coastal farms** with good wind and space
- **Industrial sites** wanting private-wire power
- **Estates** already running solar who want a second income
- **Communities** looking for local ownership

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 wind power through a corporate PPA or private wire, with community backing built in.

Sources: DESNZ Clean Power 2030 Action Plan (Dec 2024); Carbon Brief; DESNZ community benefits guidance for onshore wind in England (July 2025).

THE RANGE

Wind sized to the site

We match the turbine to the wind, the grid and the landscape – from a single machine supplying a factory to a cluster exporting to the grid.

Scheme	Turbines	Tip height	Capacity	Connection	Best for
Single turbine	1	100–150 m	2.5–4.5 MW	11–33 kV or private wire	Farms, industrial estates
Small cluster	2–4	125–180 m	10 MW	33 kV	Estates, upland farms
Medium cluster	**4–6**	**150–200 m**	**20 MW**	**33 kV**	**Open upland and coastal land**
Large cluster	6–8	150–200 m	30 MW	33–132 kV	Larger estates

Inside every project

TURBINES

- Modern 3–5 MW class machines
- Manufacturer service agreement
- Availability warranty

CIVILS

- Foundations and crane pads
- Access tracks
- Drainage and reinstatement

ELECTRICAL

- Collector cables
- Substation and switchgear
- Grid or private-wire connection

COMMUNITY

- £5,000 per MW a year fund
- Local ownership option
- Early public engagement

What it takes to get wind built

1. **Wind data** — Met mast or LiDAR campaign and energy yield assessment.
2. **Constraints** — Aviation, radar, ecology, noise, landscape and shadow flicker.
3. **Community** — Early engagement and a community benefit offer.
4. **Planning** — Application with environmental assessment.
5. **Build** — Turbines, foundations, cabling and grid works.

SITING AND THE LANDOWNER

Farming carries on around the turbines

Turbines, tracks and crane pads use a small part of the site. The rest of the land stays in farming, and the landowner earns rent and a share of the profit for the life of the project.

Upland and coastal farms

Open land with average wind speeds of 6.5 m/s or more at hub height.

Industrial estates

Single turbines supplying private-wire power to a large site user.

Community-backed sites

Locations where the community wants local ownership and benefit.

What we look for

Criterion	What works	Why it matters
Wind speed	6.5 m/s+ at hub height	Energy yield drives revenue
Separation	Distance from homes per noise and flicker limits	Planning and neighbour amenity
Aviation and radar	No airport or MoD radar conflict	A common reason schemes fail
Grid	Within reach of 33 kV or 132 kV	Connection cost and timing
Access	Route for blades up to 80 m long	Delivery of turbine components

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
- **Ground rent** of around 4% of revenue, index-linked
- **Community benefit fund** paid by the project, not the landowner

Planning and consents

- Planning permission (local authority for most schemes; NSIP for the largest)
- Environmental impact assessment where required
- Aviation, MoD and radar consultations
- Network operator connection offer
- Community engagement in line with government guidance

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
2.5 MW single	£4.2m	£3.6m	£0.6m	£25k	£6.5m
10 MW	£15.5m	£13.2m	£2.3m	£0.16m	£26.8m
20 MW	**£29.0m**	**£24.6m**	**£4.3m**	**£0.42m**	**£55.0m**
30 MW	£43.5m	£37.0m	£6.5m	£0.63m	£82.5m

20 MW – first full year of operation

£4.20m
revenue

£3.04m
EBITDA after O&M, community fund and rent

£2.54m
EPC finance debt service

£0.50m
net cash, split 50/50

~23%
equity IRR, payback ~7 years

What the landowner receives

- **50%** of net distributable cash every quarter, open-book
- **£0.17m a year** ground rent (about 4% of revenue), index-linked
- Cash share rises to about **£2.44m a year** on a 20 MW once the EPC loan is repaid
- **Community benefit** of £5,000 per MW a year paid 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: 30% capacity factor, £80/MWh, operating costs £45k per MW, community benefit £5k per MW, 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 turbines, foundations, tracks, cabling and grid works. The turbine manufacturer services the machines under a long-term agreement with an availability warranty.

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 operator manages the wind farm with the turbine manufacturer's service team, 24/7 remote monitoring and local maintenance crews.

How a site is delivered

1. **Survey** – Wind, constraints, grid and community screen.
2. **Contract** – Heads of Terms, JV and fixed-price EPC.
3. **Consent** – Wind data, EIA and planning – the longest stage.
4. **Build** – Foundations, tracks, turbines – about 9–12 months.
5. **Operate** – Output from day one; income shared quarterly.

Performance guaranteed

- Turbine availability warranted by the manufacturer
- Power curve guarantee tested after commissioning
- Long-term service agreement for the full term
- Insurance cover for breakdown and lost revenue

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

3–5 years including planning

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

NEXT STEPS

Talk to us about wind on your land

Send us the location and size of your land and anything you know about wind speeds, the grid or past studies. We will come back with a constraints screen and an indicative income range.

1
Site screen
Land, grid headroom, planning status and wind resource and constraints.

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 open, windy land
- Industrial sites wanting private-wire wind power
- Developers with consented wind sites looking for funding
- Community energy groups seeking a funded partner

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.