

Solar quote checker

Three things in one sheet: what to measure before you get a quote, how to check the quote's numbers against published data, and what an MCS installer must give you in writing **before** you sign.

IT CHECKS CONSISTENCY, NOT TRUTH

This sheet tells you whether a quote's numbers agree with each other and with an independent model. It cannot tell you whether the roof is sound, whether the installer is competent, or whether the price is fair. A quote can be perfectly self-consistent and still wrong about your roof.

1. Your roof — measure, do not guess

Orientation and pitch drive every figure below

Nearest location from the table overleaf _____

Roof covering _____

Roof pitch, degrees from horizontal _____°

Loft conversion, dormer or re-roof? _____

Orientation, degrees from due south _____°

Roof age / condition _____

Compass apps give magnetic north; the model wants true. A roof you think is south is often 20–30° off. Measure the pitch against a rafter with a phone spirit level rather than estimating it.

Shading — note each obstruction, its direction and roughly how high it stands:

Obstruction	Direction from the array	Height / angle	Times of day affected

2. The quote's own numbers

MIS 3002 §4.1.6 prescribes this table

Installed capacity _____ kWp

kWh/kWp (Kk) used _____

Orientation stated on the quote _____°

Shade factor (SF) _____

Inclination stated _____°

Estimated annual output _____ kWh

Postcode region _____

Price _____ → per kWp _____

THE ONE CALCULATION THAT MATTERS

Annual output ÷ kWp ÷ shade factor = implied kWh/kWp. Compare it with the table overleaf for your location, pitch and orientation.

Implied figure _____ kWh/kWp Table says _____ Difference _____%

3. Self-consumption — the number that decides the saving

MGD 003 §7 prescribes these disclosures

Assumed occupancy archetype _____

Expected self-consumption _____% and _____ kWh

Home all day / in half the day / out all day

Assumed annual consumption _____ kWh

Grid independence _____%

With battery, if quoted _____%

Import rate assumed _____ p/kWh Export rate assumed _____ p/kWh Can you actually get that export rate?

SENSE-CHECK THE SELF-CONSUMPTION FIGURE

For a household using 2,500–2,999 kWh a year with a 3,600–3,899 kWh array, **MGD 003 gives 23% home all day, 19% in half the day, 14% out all day**, with no battery. A quote assuming far more than that, without storage, is assuming something the authoritative UK method does not.

Full tables are in MGD 003 itself — free from MCS. We do not reproduce them.

4. What you must be given before you sign

MIS 3002 §4.1.3 and §4.2.1 — before the contract is awarded

- ☐ The performance estimate in the prescribed format, with the Important Note attached
- ☐ Manufacturer's datasheet for the modules
- ☐ Manufacturer's datasheet for the inverter
- ☐ Datasheet for module-level electronics, if any
- ☐ Datasheet for the battery, if any
- ☐ A drawing showing the proposed module layout
- ☐ **The sunpath diagram** used to calculate the shade factor, where SF is below 1.00 and the MCS method was used
- ☐ A note if the site was assessed remotely — “actual performance may be significantly lower or higher”

These are requirements of the standard an MCS installation is carried out to, not favours. A non-MCS installer is not bound by them — and you would not be able to claim export payments or most grants.

5. Questions to ask, in writing

Ask by email; the reply is the evidence

The company

1. Which legal entity will carry out the installation, and its company number?
2. Are you MCS certified, and for which technologies?
3. Which consumer code do you belong to — RECC, HIES or neither?
4. How long have you been trading under this company?

The design

5. Has anyone been on the roof, or was this assessed remotely?
6. What shade factor did you apply, and how was it calculated?
7. Who checked the roof structure, and what did they conclude?
8. Was a wind loading calculation done for this mounting system?
9. Why this array layout rather than a larger or smaller one?
0. Are optimisers or microinverters included, and why or why not?
1. What is the inverter's AC rating against the array's kWp?
2. How will cables be routed — through any wall shared with a neighbour?

Money and paperwork

13. What is included, and what is extra? Scaffolding, consumer unit, roof repairs, bird protection?
14. What deposit is required, and who insures it?
15. Is an insurance-backed guarantee included, from which insurer, for how many years?
16. How long is the workmanship warranty? (Compare with 15.)
17. What are the module and inverter warranties, and what output is guaranteed at the end?
18. Will you notify the network operator under G98 or G99, and will I get a copy?
19. Who notifies the electrical work under the building regulations, and when do I get the certificate?
20. When will I receive the MCS certificate?

After the sale

21. What is your cancellation period, and when does it start?
22. Am I being asked to authorise work beginning during it?
23. What happens if the DNO imposes an export limit?
24. Who do I contact if the system underperforms, and what would you do?
25. What is your complaints procedure, and which dispute service applies?

ASK BY EMAIL, NOT ON THE DOORSTEP

Under section 50 of the Consumer Rights Act 2015, what a trader says or writes to you about the service — and which you take into account in deciding to buy — is treated as a term of the contract. A written answer is worth considerably more than a spoken one.

Reference: annual output per kWp, 35° facing south

Our own modelling from PVGIS 5.3

Location	kWh/kWp	Location	kWh/kWp
Brighton	1042	Dundee	847
Plymouth	1012	Belfast	831
Southampton	959	Carlisle	824
Cardiff	939	Dumfries	820
Norwich	931	Edinburgh	817
Bristol	922	Aberdeen	809
London	919	Manchester	801
Birmingham	874	Kirkwall	776
Chester	865	Glasgow	771
Aberystwyth	860	Inverness	734
Newcastle	857	Stornoway	725
Middlesbrough	857	Lerwick	692
Sheffield	856		

Range across the UK: **692 to 1,042 kWh per kWp** at 35° facing south. Multiply by your system size in kWp, then by the shade factor.

Other pitches and orientations

Percentage of the same location's 35° south figure, averaged across all 25 locations. The ratios vary by only two or three points nationally, so this table works anywhere in the UK.

Pitch	South	SE / SW	E / W	NE / NW	North
Flat	83%	83%	83%	83%	83%
20°	96%	92%	82%	71%	66%
35°	100%	94%	79%	62%	54%
60°	96%	89%	70%	48%	36%
Vertical	74%	68%	51%	31%	21%

Note that for east, west and north-facing planes, **flat beats pitched** — a horizontal surface has no orientation to get wrong.

Sources. Generation figures are our own modelling from PVGIS 5.3 (European Commission, Joint Research Centre) at 20% system losses, following the method in MCS MIS 3002 — the full 625-value dataset is free to download at solar.org.uk/learn/generation-by-region/ under CC BY 4.0. Disclosure requirements from MIS 3002 issue 6.0 §§4.1–4.2 and MGD 003 issue 2.0 §7. Contractual effect of statements from the Consumer Rights Act 2015, s.50.

Information, not advice. This sheet helps you check a quote's internal consistency and collect what you are owed. It is not a survey, not a valuation, and not a substitute for a competent person inspecting your roof.

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