Solar Installation Day Checklist

What to check before, during and after · Engineer-written, MCS-referenced

solar-tech-support.co.uk

Standards: MIS 3002:2025 (Solar PV) & MIS 3012:2025 (Battery) — mandatory for MCS-certified installers. Free at mcscertified.com/standards-tools-library/

Statute: EaWR 1989 · BS 7671:2018+A3:2024 · Part P · EREC G98/G99 · CDM 2015

1 · BEFORE THEY START

☐ **1** — **MCS certification is current and covers the work being done**
Verify at mcscertified.com/find-an-installer/ on the day. Solar PV (MIS 3002) and battery storage (MIS 3012) are separate accreditations — check both if both are being installed. If installer does not hold battery MCS certification, check with your chosen export provider whether this affects export payment eligibility — requirements vary.
MCS Scheme Rules 2025

☐ **2** — **Access method (scaffold/ladders) matches the quote**
If scaffold was quoted and not provided, raise it before work begins.

☐ **3** — **Kit matches the quote, DNO notification and mounting system**
Compare panels, inverter and battery against quote and DNO notification. Also check the mounting system — rails, hooks and clamps should match the MCS design certificate. Substitutions invalidate the DNO notification and can affect MCS certificate and SEG eligibility.
MIS 3002:2025 s3.1.5–3.1.6

☐ **4** — **Before/after photos taken at the outset**
Photograph roof, loft interior and consumer unit before work begins. Essential evidence if a pre-existing condition dispute arises.

☐ **!** — **G99 written approval in hand if combined inverter capacity exceeds 3.68 kW (16A/phase)**
▲ >3.68 kW combined — must see this document before work starts
Applies to total combined capacity at the property — existing plus new. G98 notification is not sufficient above this threshold. Setting an export limit of 3.68 kW does NOT allow use of G98 — the threshold is based on rated capacity, not configured limit. G99 fast-tracks are available for some capacities but still require prior written approval before work starts. For G99 installs: post-install commissioning documents must also be submitted to the DNO to make the connection valid — ask to be CC'd on that email.
MIS 3002:2025 s3.1.5 | MIS 3012:2025 s3.1.7 | EREC G99

2 · ROOF & MOUNTING

☐ **R1** — **Tile hooks correct type and pre-drilled — adjustable hooks for undulating roofs**
Screw holes must be pre-drilled before the hook screw goes in. Forcing screws without pre-drilling can split the roof rafter — check the loft after hooks are in. Tiles must sit flush. On older undulating roofs, adjustable height hooks should have been identified at survey stage.
MIS 3002:2025 s3.9.1 | MCS 012

☐ **R2** — **Tiles/slates notched or flashed where lifted**
Where tiles are lifted for hooks, notch or flash to prevent gaps greater than those pre-existing the installation.
MIS 3002:2025 s3.9.7

☐ **R3** — **Panels not within 400mm of roof edge (unless specific measures taken)**
Edge zone requires additional fixings for wind uplift, ridge tile security, rainwater run-off and snow injury prevention.
MIS 3002:2025 s3.9.6

☐ **R4** — **Loft checked — no split rafters, breathable membrane intact**
After hooks are in: look for screws through the membrane and split rafters. Both are structural/moisture issues.

☐ **R5** — **Rails straight and parallel before panels are fitted**
A bowed rail creates uneven loading. Straightforward to correct before panels go on — difficult after.

☐ **R6** — **Panels level and aligned across the array**
Misaligned panels indicate a rushed crew — a useful proxy for the care taken on work you cannot see.

☐ **R7** — **DC wiring cable-tied to rail — no loose cables anywhere**
Panel cables carry live DC voltage any time there is daylight. Loose cables chafe, wear through insulation and arc. RC62:2023 identifies loose DC cabling as a leading cause of PV fires.
MIS 3002:2025 s3.6.3–3.6.4 | RC62:2023 (FPA/MCS/SEUK)

☐ **R8**

Bird proofing uses perimeter clips only — not screwed into panels or roof

Screwing into roof coverings creates slow leaks. Screwing into panel frames voids the panel manufacturer warranty. Correct method: perimeter clips clamped to the panel frame only, without penetrating it.

MIS 3002:2025 s3.9.1

☐ **R9**

MC4 connections: correct crimp tool used, glands tightened with MC4 spanners

MC4s must be crimped with the correct MC4 crimp tool — not pliers. Badly crimped connections are a fire risk. Glands must be tightened with MC4 spanners — hand-tight allows water ingress even if it looks secure. Ask the roofer to show both tools before starting.

MIS 3002:2025 s3.6.4 | RC62:2023

☐ **R10**

Fire performance of roof maintained

Installer must confirm installation has not reduced the roof fire class rating. Ask which fire class the mounting kit is rated to.

MIS 3002:2025 s3.8.1 | Approved Document B

3 · ELECTRICS & BATTERIES

☐ **E1**

Inverter mounted on heatproof material with adequate clearance

Must not be on timber, plasterboard or uPVC. Heatproof backplate required. Minimum clearances per manufacturer's manual.

MIS 3012:2025 s3.7.10

☐ **E2**

EPS/UPS has dedicated earth — neutral-earth bond relay confirmed

▲ Non-negotiable if EPS/backup fitted

Island-mode systems require dedicated earth, N-E bond relay at one point only, and all live conductors isolated from grid on switchover. On many modern hybrid inverters the N-E bond relay is built into the inverter — confirm this in the manufacturer's documentation. If property has TT earthing (common in rural areas), existing earth electrode may be used — must be explicitly confirmed by the electrician.

MIS 3012:2025 s3.5.5–3.5.11 | BS 7671

☐ **E3**

RCD/RCBO protecting solar/battery circuit is bidirectional

▲ Amendment 3:2024 — in force 31 July 2024

BS 7671:2018+A3:2024 Reg 530.3.201 (in force 31 July 2024) requires bidirectional protective devices where supply can appear on either side. A standard unidirectional RCBO is not compliant. Reg 551.7.1 also requires the RCD to disconnect all live conductors including neutral.

BS 7671:2018+A3:2024 Reg 530.3.201 | Reg 551.7.1

☐ **E4**

Cabling tidy — conduit where exposed, penetrations sealed, underground in conduit/armoured

Cables through building fabric must be sealed. Exposed surface cables in conduit or trunking. Underground runs must use conduit or armoured cable.

MIS 3002:2025 s3.6.5

☐ **E4a**

DC isolators are DC-rated, lockable and correctly rated for array voltage

DC isolators typically have black handles; AC isolators red — useful quick check. Both must be lockable in the open position (BS 7671 Reg 537.2.2.2). Built-in inverter isolators are usually not lockable — a separate external lockable DC isolator is required if not. Standard residential DC isolators are 450V 16A — large arrays can approach 600V DC, requiring a higher-rated device. Check array open-circuit voltage on the system schematic.

BS 7671 Reg 537.2.2.2 | BS 7671 Section 712 | BS EN 60947-3

☐ **E4b**

SPDs fitted — or written refusal obtained from you

BS 7671 Reg 443.4.1: SPDs shall be provided unless owner explicitly declines in writing. If AC side requires SPDs, DC-side SPDs must also be fitted using DC-rated devices.

BS 7671 Reg 443.4.1 | Reg 712.443.101 | MIS 3002:2025 s3.3.3

☐ **E5**

Dual-supply warning labels at all four required locations

▲ Four specific locations — not just the inverter

(1) Origin of installation (2) Meter position if remote (3) Consumer unit (4) All isolation points. With battery installed: PAS 63100:2024 composite battery+solar symbol required at origin.

BS 7671 Reg 514.15.1 | PAS 63100:2024 | MIS 3012:2025 s4.2.1

☐ **E6**

Battery location reviewed for insurance, fire safety and temperature performance

Insurers increasingly require batteries installed outside — confirm your insurer's requirements before install. If outside: many batteries de-rate below ~10°C and may stop charging at 0°C. Datasheets show minimum operating temp but not the higher de-rating threshold. Check if battery has self-heating. Some manufacturers also prohibit direct sunlight.

MIS 3012:2025 s3.7.1–3.7.5, s3.8.1–3.8.3 | PAS 63100:2024

☐ **E7** **Batteries properly racked with manufacturer clearances observed**
Wall-mounted rack or approved stackable brackets required. Units must not be stacked unsupported. Clearances are a warranty condition.
MIS 3012:2025 s3.7.6–3.7.7 | BS EN 62109-1

☐ **E8** **Arc fault detection (AFCI) enabled in inverter**
Where AFCI is present it must be enabled — mandatory under MIS 3002:2025, not optional.
MIS 3002:2025 s3.6.7

☐ **E9** **WiFi/monitoring credentials set with you — tested before crew leave**
Credentials must not be left as factory defaults. Test every login before the crew leave.
MIS 3002:2025 s3.7.6 | MIS 3012:2025 s3.6.2

☐ **E10** **Charge/discharge schedule set (especially if on cheap overnight tariff) — error log cleared**
Starting without a charge schedule means paying peak rate to fill the battery on night one. Ask installer to clear commissioning fault codes.

4 · POST-INSTALL TESTS

☐ **T1** **Kettle test — check smart meter shows minimal grid draw**
With sun out or battery charged, there should be little grid draw when kettle is on. Full load from grid = likely CT clamp direction error.

☐ **T2** **Energy flow direction correct in monitoring app**
Run a load and check the app. Consumption should draw from solar/battery; export should flow out when generation exceeds demand. Reversed = CT clamp wrong way.

☐ **T3** **EPS backup tested — installer simulates grid loss**
If EPS/UPS fitted, insist on a grid-loss simulation test on the day. Do not accept 'we'll test it later'.

☐ **T4** **EV charger — 10 min run, no trips, solar configuration verified**
Check no breakers trip under sustained load. If solar-compatible charger, confirm it is configured correctly — an unconfigured solar charger will charge from the grid regardless of available solar generation.

☐ **T5** **Smart meter records some export — photograph the reading**
Any correctly-configured system will export something during the day, provided the battery is full. Photograph export reading — useful for SEG application.

☐ **T6** **Battery balance charge on day one — normal behaviour**
Day 1 grid draw during solar = normal (BMS balance charge). Day 2 grid draw during active solar = contact installer.

☐ **T7** **Panel string map received — matches monitoring layout**
Confirm monitoring channels match physical layout. Essential for future fault diagnosis, especially with microinverters/optimisers.

5 · DOCUMENTS — YOUR HANDOVER PACK

You are entitled to all of these. Under MIS 3002:2025 Appendix C and MIS 3012:2025 s4.1.1 the installer must provide a complete document pack at handover. Some are handed over on the day; others — the MCS certificate, IBG activation and building-control notices — follow shortly after from the installer's office. Do not make final payment until this list is complete. MCS/HIES/RECC-registered installers cannot withhold certificates as a means of recovering payment — contact MCS on 0333 103 8130. ★ = legal requirement or critical item

☐ ✓ **DNO G98 notification or G99 approval**
Confirm kit list matches what was installed. For G99: commissioning documents must also be submitted to the DNO after install — the connection is not formally valid until received. Ask to be CC'd on that email.

☐ ★ **MCS certificate (within 10 working days)**
Must list the equipment actually installed. If the installer holds MCS for battery storage, that should be shown on the certificate.

☐ ★ **Electrical Installation Certificate (EIC) — issued under Part P**
Legal requirement for all notifiable electrical work. Must reference BS 7671:2018+A3:2024. Without this, installation is unregistered — affects insurance and future property sale.

☐ ✓ **Signed installer declaration**
Confirms installation meets MIS 3002/3012. Must include components list, performance estimate and recommended inspection interval.

☐ ✓ **System schematic + emergency shutdown procedure**
Panel string map forms part of the schematic. Both must be physically affixed to the wall near the inverter — installation-specific, not generic templates. Shutdown procedure must reference your actual isolator locations.

☐ ✓ **SPD fitted — or written refusal if declined**
Both parties keep a copy of written refusal. Confirm DC-side SPDs also fitted if AC side requires them.

☐ ✓ **All component serial numbers**
Panels, inverter, battery, optimisers. Register with manufacturer where required — not all manufacturers require registration. Check each warranty document for timeframe.

☐ ✓ **Warranty documentation for all components**
Check whether registration is required and within what timeframe. Some warranties are only valid once registered.

☐ ★ **IBG certificate — term matches your quote**
Deposit reference ≠ full IBG. After install, the IBG provider must be notified to activate the workmanship guarantee. Verify the term on the certificate matches your quote — if quote said 10 years, certificate must say 10 years, not 5 or 2.

☐ ✓ **Operating manuals for all components**
Must cover on/off/reset and how to force-charge from grid during off-peak. Get PDFs — do not accept 'it's online'.

☐ ★ **Login credentials — tested before crew leave**
User IDs and passwords for monitoring portal, battery app and device web interfaces. Test every one before the crew leave.

☐ ✓ **Panel string map (forms part of schematic)**
Which panels on which string, which monitoring channel maps to which panel. Must be affixed with the schematic near the inverter.

☐ ✓ **Customer maintenance schedule**
Checks you should carry out yourself, their frequency, and who to contact. Required under MIS 3002:2025 s3.7.5.

☐ ✓ **Commissioning checklist (signed)**
MIS 3012:2025 Appendix A (Parts 1–4) for battery. MIS 3002:2025 s4.1 for solar. Ask for a signed copy.

☐ ★ **Building control notifications (x2 or combined)**
One for solar under building regulations; one for electrical under Part P. A new radial is installed as a minimum — notifiable works are essentially guaranteed on every install.

☐ ✓ **Installer direct contact details**
Direct contact for post-install issues, not just a general enquiries number.

6 · AFTER INSTALL — FIRST STEPS

☐ → **Apply for an export tariff immediately**
Every day without one is income you cannot recover. You need your MCS certificate and, for G99, your export MPAN. Octopus are the market leaders but other providers are available.

☐ → **Move to a time-of-use import tariff**
Octopus Go, Agile or Intelligent Octopus allow cheap overnight battery charging — this is where substantial battery savings come from.

☐ → **Tell your home insurer**
Some policies require notification of solar/battery as a change. Check your policy wording.

☐ → **First sunny day: compare generation against estimated yield**
If significantly below the installer's estimate on a clear day, raise it with the installer. Check the generation graph for unexplained dips (overheating or overvoltage tripping).

☐ → **Register equipment with manufacturers where required**
Not all manufacturers require registration — check the warranty documentation for each component.

Found a problem?

First point of call is always your installer — they have a contractual and regulatory obligation to rectify defects. For an independent second opinion or if the installer is unresponsive, STS can carry out a post-install snag inspection — remotely for £145, or on-site for £295 — covering configuration, monitoring data, performance and key checks from this list. Visit solar-tech-support.co.uk to book.