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A FIELD GUIDE BY SOLAR SURVEYS LTD

MIS 3002 V6.0 *in plain English.*

An MCS-licensed installer's field guide to the 18 June 2026 mandate.

STANDARD	ISSUED	MANDATORY	DOMAIN
MIS 3002:2025 V6.0	18 March 2026	18 June 2026	solarsurveys.co.uk

IMPRINT

About this guide.

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Scope. The guide explains MIS 3002:2025 V6.0 (the MCS structural standard for solar PV) in plain English for UK MCS-licensed installers. The standard applies to solar PV systems within MCS scope, which is sub-50kWp DC output. Above-50kWp systems sit outside MCS scope and are governed by Eurocode 1 plus Building Regulations Approved Document A directly. The guide focuses on the V6.0 changes that materially affect installer workflow.

Editorial standard. Engineering-grade language only. No marketing claims. No fluff. Where the standard provides explicit clause text, that text is quoted verbatim. Where interpretation is required, the underlying engineering principle is named so the reader can verify the reading against the source.

Standards anchor. Findings are read against the standards current at publication date: MIS 3002:2025 V6.0 (issued 18 March 2026, mandatory from 18 June 2026), BS EN 1991-1-4 plus UK National Annex (wind), BS EN 1991-1-3 plus UK National Annex (snow), BS EN 1990 (basis of structural design), BRE Digest 489 (2014, wind loads on roof-mounted PV), Building Regulations Approved Document A (England and Wales, with equivalents under the Scottish Technical Handbook Section 1 Structure and Technical Booklet D for Northern Ireland), MCS 020 (flat-roof PV product), MCS 032 (general PV). BS 6399-2:1997 was withdrawn in 2010 and should not be cited as a current source.

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Contents.

SECTION 01

Executive Summary. The 18 June 2026 mandate in 60 seconds.

MCS issued MIS 3002:2025 V6.0 on 18 March 2026. From 18 June 2026, every MCS submission must meet V6.0 evidential standards. Submissions that do not will be rejected at audit. The change is not cosmetic.

V6.0 introduces three material changes that affect every MCS-licensed installer's workflow:

1. **Section 5.9.4 makes the structural check universal.** Every install, regardless of roof type, must have its roof structure checked by a "suitably competent person" prior to installation. The clause is not new in principle but its plain-language phrasing in V6.0 closes earlier ambiguity.
2. **Section 5.9.6 fixes the trigger criteria for a qualified structural engineer.** Seven specific roof conditions now mandate a qualified SE, not just a competent person. Hipped roofs, valley roofs, asymmetric duo-pitched roofs, dormers, parapets, sub-30 degree pitch, and any roof showing signs of structural distress.
3. **Section 5.9.13(h) makes the qualified SE absolute on flat-roof ballasted systems.** No array-size discretion. Sub-50kWp residential and sub-50kWp commercial flat-roof ballasted installs both meet the trigger.

Plus one evidential change that affects every install report:

4. **Clause 5.5.5 raises the documentation bar from "written confirmation" to "documented evidence".** A software-generated structural output that has not been reviewed and signed by a competent person no longer satisfies the standard.

> **Net effect.** Every install needs an SE check. Seven roof types and one absolute case now mandate a qualified SE. Every report needs documented evidence (not just confirmation). The MCS audit body will reject V5.0-format submissions from 18 June 2026 onwards.

The rest of this guide explains each change in detail, with verbatim regulatory quotes, worked examples, and a one-page printable pre-flight checklist.

SECTION 02

What MIS 3002 is, and why V6.0 matters.

MIS 3002 is the MCS Microgeneration Installation Standard for solar PV. It sits inside the wider MCS standards stack alongside MIS 3001 (general installer requirements), MCS 020 (flat-roof PV product compliance), MCS 032 (PV general), and the MCS Contract requirements. MIS 3002 is the standard that an MCS-licensed installer's solar PV install is audited against.

Scope: sub-50kWp DC.

MIS 3002 applies to solar PV systems within MCS scope, defined as sub-50kWp DC output. Above-50kWp systems sit outside MCS scope. Above-MCS systems are governed by Eurocode 1 (BS EN 1991 series) plus the Building Regulations Approved Document A duty directly, without MCS-specific layering. For commercial installs at the upper-domestic / lower-commercial boundary, the cap is binding: a 49.5kWp install is in MIS 3002 scope; a 50.5kWp install is not.

Why V6.0 is a step change, not a refresh.

MIS 3002 V5.0 was the live standard from October 2022 to March 2026. V5.0 carried structural language that, while technically correct, left meaningful interpretation room. Common V5.0 ambiguities included:

- What "competent person" actually meant in practice (V5.0 did not specify formal qualifications)
- Whether ballasted flat-roof installs at small array sizes required a qualified SE or could be treated as standard
- Whether software-generated structural outputs satisfied the assessment requirement
- Where the line sat between an installer's internal engineering capacity and an external structural engineer instruction

V6.0 closes each of these. The mandatory date of 18 June 2026 is firm. After that date the MCS audit body assesses submissions against V6.0 only. There is no transitional dispensation for in-flight projects.

Where this guide fits.

The remainder of this document walks through every clause that materially shifts in V6.0 with the verbatim regulatory text quoted in full. It covers Sections 5.9.4, 5.9.6, 5.9.13(h), and Clause 5.5.5 in turn. It then maps the V5.0 workflow to the V6.0 workflow side-by-side, sets out the questions an installer should ask before instructing an external structural engineer, and closes with a printable pre-flight checklist for use on every quote.

SECTION 03

What changed from V5 to V6. The delta table.

The single most-asked installer question. Side-by-side comparison of every clause that materially shifted between V5.0 and V6.0.

TOPIC	V5.0 POSITION	V6.0 POSITION	PRACTICAL IMPACT
Universal structural check (Section 5.9.4)	Required, with phrasing that left "competent person" definition open	Required, with explicit "suitably competent person" wording closing ambiguity	Every install needs a documented competent-person check. Internal engineering can satisfy this for simple roofs.
Roof trigger criteria for qualified SE (Section 5.9.6)	Trigger list present but interpretive at boundary cases	Seven specific roof conditions enumerated explicitly. Mandate is absolute on each	Seven trigger types now require external qualified SE if installer does not have internal qualified SE capacity.
Flat-roof ballasted (Section 5.9.13(h))	Treated within the broader flat-roof framework with array-size considerations	Absolute requirement: qualified SE assesses array AND ballast load on every flat-roof ballasted install	No array-size discretion. Every flat-roof ballasted install needs a qualified SE report.
Documentation standard (Clause 5.5.5)	"Written confirmation" of structural assessment	"Documented evidence" of structural assessment and wind load calculations	Software-only outputs no longer suffice. Engineer-signed report with calculation basis required.
Wind load reference	BS EN 1991-1-4 with UK NA implied	BS EN 1991-1-4 with UK NA explicit, BRE Digest 489 referenced for PV-specific coefficients	BRE Digest 489 PV-specific wind coefficient overlay now expected on every wind calculation.
Snow load reference	BS EN 1991-1-3 with UK NA	BS EN 1991-1-3 with UK NA, drift accumulation behind PV arrays explicitly considered	Snow drift behind low-pitch arrays must be assessed, not just baseline snow load.
Pull-out testing for penetrating fixings	SPRA S15-19 referenced	SPRA S15-19 referenced, with documentation requirement aligned to Clause 5.5.5	Pull-out test results must be documented in the assessment evidence pack.
Roof condition reporting	"Adequate condition" qualitatively	End-of-design-life roofs explicitly named as a Section 5.9.6 trigger	Aged roofs (asbestos cement, end-of-life felt, etc) now formally trigger the qualified SE pathway.
Assessment evidence retention	Retained per general MCS records framework	Retained per Clause 5.5.5, available for MCS audit on request	Assessment evidence (report, calcs, sign-off) becomes part of the MCS audit trail explicitly.

Read the table as a workflow change, not a paperwork change. Each row above represents a point in the install workflow where V6.0 either (a) closes a discretion that V5.0 left open, or (b) raises the evidential standard required for the same outcome. Both effects increase the practical role of the structural engineer.

SECTION 04

Section 5.9.4. The universal SE check explained.

MIS 3002 V6.0 Section 5.9.4. Verbatim.

"The MCS Contractor SHALL ensure that the roof structure has been checked by a suitably competent person prior to installation."

What this actually says.

Three load-bearing words: "SHALL", "suitably competent person", and "prior to installation".

SHALL is mandatory language. Not "should". Not "is recommended to". The installer's MCS licence depends on it.

Suitably competent person means an individual whose engineering training and experience are appropriate to the structural assessment in front of them. A qualified structural engineer (chartered or non-chartered) clearly meets the threshold. An installer's in-house engineer with relevant experience can meet the threshold for simple, standard roof typologies. A general roofer or a salesperson with a wind-load spreadsheet does not meet the threshold.

Prior to installation means the assessment is upstream of the install, not concurrent with it. Site work cannot start until the assessment is complete and the suitably competent person has signed it off.

Who counts as "suitably competent".

MIS 3002 V6.0 does not provide an exhaustive qualifications list. It defers to professional judgement on whether an individual's training and experience fit the specific assessment. In practice, the following three categories typically satisfy the test:

- **A qualified structural engineer** (Chartered Engineer with IStructE / ICE, or equivalent overseas qualification recognised in the UK). Always satisfies for any roof typology.
- **A non-chartered structural engineer** with documented evidence of training and experience appropriate to the load case. Typically satisfies for standard roof typologies where Section 5.9.6 triggers do not apply.
- **An installer's in-house engineering capacity** where the individuals concerned have documented training in the relevant Eurocode loading framework, BRE Digest 489 PV-specific coefficients, and the SPRA S15-19 pull-out testing regime. Typically satisfies for simple, standard installs that fall outside Section 5.9.6 trigger criteria.

Who does not count.

- A general roofer without structural engineering training
- A salesperson or commercial-side staff member running a structural calculation tool
- A software output that has not been reviewed and signed by a competent person (Clause 5.5.5 covers the documentation; Section 5.9.4 covers who can sign off)
- An MCS auditor or assessor on behalf of the customer (the standard places the duty on the MCS Contractor, not on a downstream review function)

Decision rule. If you cannot name the person who signed off the structural check, with their training and experience documented, the install does not satisfy Section 5.9.4. The MCS auditor will look for a name and a signature, not just a tick box.

SECTION 05

Section 5.9.6. The seven roof triggers.

Section 5.9.4 says every install needs a competent-person check. Section 5.9.6 says specific roof conditions raise that bar to a qualified structural engineer. There are seven trigger conditions. Each is explained below.

MIS 3002 V6.0 Section 5.9.6. The seven trigger conditions.

A suitably qualified structural engineer is required where the installation involves any of the following roof conditions:

1. Hipped roofs
2. Valley roofs
3. Asymmetric duo-pitched roofs
4. Dormers
5. Parapets
6. Roofs with pitch below 30 degrees
7. Any roof showing signs of structural distress

Why each one is on the list.

1. Hipped roofs.

A hipped roof has sloped surfaces meeting at corners, with no vertical gable end. The hip rafters carry concentrated load at the corners and the structural behaviour under PV array dead load plus wind uplift is not interchangeable with standard duo-pitched roofs. Eurocode 1 wind coefficients differ at hip corners. A qualified SE is required to assess.

2. Valley roofs.

Valleys form where two roof slopes meet inwards (the opposite of a hip). Structurally the valley rafter carries concentrated dead load and snow drift accumulates at the valley line. PV arrays placed near valley lines redistribute snow load in ways that the original roof structure may not have accounted for. Qualified SE required.

3. Asymmetric duo-pitched roofs.

One pitch is significantly different from the other (different angle, different span). Standard rafter spans assume symmetry. PV arrays on the longer / shallower pitch impose load distributions that the roof was not originally designed for. Qualified SE required.

4. Dormers.

Dormers create localised structural openings and additional point loads at the dormer headers. PV arrays placed adjacent to or above a dormer transfer load through structural members that may have been sized for the original dormer load only. Qualified SE required.

5. Parapets.

Parapets modify both the wind load case (higher edge-zone pressure coefficients per BS EN 1991-1-4) and the snow load case (drift accumulation in the lee of the parapet per BS EN 1991-1-3). The parapet itself adds dead load to the perimeter. Qualified SE required for any flat or low-pitch roof with a parapet.

6. Roofs with pitch below 30 degrees.

Sub-30 degree roofs behave structurally differently from steeper pitches. Snow accumulates rather than sheds. Wind uplift coefficients increase. PV array dead-load distribution reaches further into the centre of the structure rather than concentrating at the ridge. Below 30 degrees a qualified SE is required regardless of other roof features.

7. Any roof showing signs of structural distress.

The catch-all. Visible deflection, cracking, moisture damage, sagging members, evidence of historic intervention, end-of-design-life condition (asbestos cement at 30+ years, built-up felt at 20+ years), or any other structural symptom. The clause is intentionally broad because the standard cannot enumerate every possible condition. If the roof presents any structural concern on visual inspection, the qualified SE pathway is mandatory.

> **How to use this list on every quote.** Add Section 5.9.6 trigger assessment to your standard pre-quote site visit. If any trigger is present, scope an external qualified SE engagement (or use internal qualified SE capacity if available) into the quoted price. Do not quote without confirming the structural pathway. The cost of a qualified SE engagement is significantly less than the cost of an MCS audit failure that requires the install to be re-engineered post-installation.

SECTION 06

Section 5.9.13(h). The flat-roof ballast absolute.

The single biggest practical change between V5.0 and V6.0. Flat-roof ballasted PV is now an absolute qualified-SE requirement. No array-size discretion. No installer-internal sign-off pathway.

MIS 3002 V6.0 Section 5.9.13(h). Verbatim.

"A qualified structural engineer SHALL be consulted to assess the imposed load from the array AND the ballast on the roof structure."

Why the clause is absolute.

Flat-roof ballasted systems impose load through ballast blocks distributed across the membrane. The ballast adds significant dead load (typically 30 to 80 kg/m² depending on wind exposure zone and ballast pad spacing) on top of the PV array dead load itself. The combined imposed load on the roof structure can equal or exceed the original design imposed load for the roof.

V5.0 treated this within the broader flat-roof framework with discretion at small array sizes. In practice that discretion was inconsistently exercised across the installer base. V6.0 removes the discretion: every flat-roof ballasted install, regardless of array size, requires a qualified SE to assess the combined ballast plus array load on the roof structure.

What "qualified structural engineer" means here.

The same threshold as Section 5.9.6: a Chartered Engineer with IStructE / ICE membership, or a non-chartered structural engineer with documented evidence of training and experience appropriate to the flat-roof ballasted load case. An installer's in-house engineering capacity does not satisfy unless the individual concerned meets the qualified SE threshold.

What the assessment must cover.

The verbatim clause names two specific load components: "the imposed load from the array AND the ballast on the roof structure". The "AND" is significant. The assessment must address both components together as a combined load case, not the array load alone.

In practice, the qualified SE assessment will address:

- **Combined dead load.** Array dead load plus ballast pad dead load against the roof structure's available load reserve under Eurocode 1.
- **Wind uplift.** BS EN 1991-1-4 with UK National Annex, with BRE Digest 489 PV-specific wind coefficients applied. Edge-zone and corner-zone pressure coefficients

calculated explicitly.

- **Snow load.** BS EN 1991-1-3 with UK National Annex, with drift accumulation behind the array considered.
- **Ballast distribution adequacy.** Whether the ballast pad spacing and individual pad weight are sufficient to resist the wind uplift force without the array sliding or lifting.
- **Membrane warranty implications.** Whether the ballast pad system is on the membrane manufacturer's approved list. Non-approved systems can void the membrane warranty.
- **Drainage interaction.** Whether ballast pads create local water-pooling zones that accelerate membrane degradation.

What this means for installer workflow.

Every flat-roof ballasted quote now needs a qualified SE engagement priced into it. There is no longer a small-array carve-out where the installer's in-house engineering can sign off the structural assessment unilaterally. Pre-quote screening should identify ballasted flat-roof installs at the enquiry stage, scope the SE engagement, and price accordingly.

> **If you only remember one V6.0 change, remember this one.** Section 5.9.13(h) is the single clause most likely to cause an MCS audit failure on installs that previously cleared under V5.0. The MCS audit body will check for the qualified SE sign-off on every flat-roof ballasted submission from 18 June 2026.

SECTION 07

Clause 5.5.5. The documented-evidence step-up.

Clause 5.5.5 changes the documentation requirement from "written confirmation" (V5.0) to "documented evidence" (V6.0). Two words apart, a meaningful gap in practice.

MIS 3002 V6.0 Clause 5.5.5. Plain-English summary.

V6.0 requires documented evidence of structural assessment and wind load calculations to be retained for every install. The evidence must be available for MCS audit on request. V5.0 required only "written confirmation" of structural assessment, which in practice was often satisfied by a single sign-off statement without supporting calculation detail.

What "documented evidence" means in practice.

The MCS audit body will look for a structural report that includes, at minimum:

- **Calculation basis.** The standards referenced (BS EN 1991-1-4, UK National Annex, BRE Digest 489 etc), the load case considered, and the assumptions made.
- **Wind load calculation.** Site location, wind zone, terrain category, basic wind speed, peak velocity pressure, pressure coefficients (with PV-specific overlay from BRE Digest 489), and resulting uplift force at edge and corner zones.
- **Snow load calculation.** Site location, snow zone, characteristic snow load, drift accumulation factors where parapets or arrays modify the baseline.
- **Dead load assessment.** Array dead load, mounting hardware dead load, ballast dead load (where applicable), against the roof structure's available reserve.
- **Pull-out test results.** Where penetrating fixings are used on metal sheet roofs, SPRA S15-19 pull-out test results documented per fixing type.
- **Engineer signature.** The name, qualifications, and signature of the suitably competent person (or qualified structural engineer where Section 5.9.6 / 5.9.13(h) triggers apply) who has reviewed and signed off the assessment.
- **Date of assessment.** So the audit body can verify the assessment is current relative to the install date.

What does not count under V6.0.

- A software output PDF with no human review or signature
- A single-line confirmation statement (e.g. "structure adequate") without supporting calculation
- A wind-load-only calculation that does not also address snow load and dead load
- A report signed by a person whose qualifications and experience are not documented (the audit body cannot verify "suitably competent" without evidence)
- An assessment more than 12 months old at the install date (depending on roof condition; the standard expects current assessment for current condition)

Why the change matters.

V5.0's "written confirmation" framing allowed installers to satisfy the standard with a brief sign-off statement, often produced quickly by in-house staff using a structural calculation tool. V6.0's "documented evidence" framing closes that route. The MCS audit body now expects to see the full calculation basis, the load case, the engineer signature, and the qualifications behind the signature.

> **Software outputs alone no longer satisfy the standard.** If your current workflow generates a PDF from a calculation tool and that PDF is your structural evidence, that workflow does not satisfy V6.0. The output needs to be reviewed and signed by a suitably competent person, and the supporting calculation basis needs to be retained as part of the MCS audit trail.

SECTION 08

What this means in practice. V5 workflow vs V6 workflow.

The V6.0 changes hit specific decision points in the install workflow. The two flows below show where the work shifts.

V5.0 workflow (pre-18 June 2026).

1. Site survey identifies roof typology and condition
2. Internal structural calculation tool produces wind load output
3. Installer-side engineer reviews and signs off (or written confirmation satisfies)
4. Quote issued, install booked
5. Install complete, MCS submission made
6. MCS audit (if selected): brief structural sign-off statement satisfies

V6.0 workflow (18 June 2026 onwards).

1. Site survey identifies roof typology and condition
2. **Section 5.9.6 trigger assessment.** Hipped, valley, asymmetric duo-pitched, dormer, parapet, sub-30 pitch, structural distress? If any: external qualified SE engagement scoped (unless internal qualified SE capacity available)
3. **Section 5.9.13(h) check.** Flat-roof ballasted? If yes: external qualified SE engagement mandatory regardless of array size
4. Structural assessment performed by competent person (or qualified SE per above), with full documented evidence per Clause 5.5.5: calculation basis, wind load (with BRE Digest 489 overlay), snow load, dead load, pull-out tests where applicable, signature, qualifications, date
5. Quote issued reflecting the structural pathway and any SE engagement cost, install booked
6. Install complete, MCS submission made with documented evidence pack
7. MCS audit: full structural evidence pack reviewed against V6.0 standard

Where the cost shifts.

V6.0 increases the structural cost on three install categories specifically:

1. **Flat-roof ballasted installs of any size.** Now require qualified SE; previously could be signed off internally on small arrays.
2. **Installs with any Section 5.9.6 trigger.** Hipped, valley, asymmetric duo-pitched, dormer, parapet, sub-30 pitch, distress. Now formally require qualified SE; previously interpretive.
3. **Installs that previously relied on software-only structural outputs.** Now require human review and signature with full documented evidence pack; previously a written confirmation could suffice.

For standard pitched-roof installs without Section 5.9.6 triggers and with a competent person available to perform the assessment with documented evidence, V6.0 does not materially change the workflow. The competent-person check was always required; V6.0 just makes the documentation requirement firmer.

SECTION 09

What to ask your structural engineer. Ten questions.

If you are about to engage an external structural engineer for the first time under V6.0, these ten pre-instruction questions will tell you whether they understand the standard.

1. **"Which standards do you reference for solar PV wind loading?"**
   Listen for: BS EN 1991-1-4 with UK National Annex, plus BRE Digest 489 (2014) for PV-specific coefficients. If they cite only one of those, or if they reference BS 6399 (withdrawn 2010), the answer is incomplete.
2. **"How do you handle Section 5.9.6 trigger assessment?"**
   Listen for: confident enumeration of the seven trigger conditions and a clear screening process at the desktop or pre-survey stage. If they ask you what Section 5.9.6 is, instruct someone else.
3. **"For a flat-roof ballasted install, how do you address Section 5.9.13(h)?"**
   Listen for: combined dead-load assessment of array AND ballast against roof structure reserve, with explicit BS EN 1991-1-4 wind uplift calculation, drainage review, and membrane warranty cross-reference. If they treat ballast as separate from array load, they have missed the clause.
4. **"What evidence do you provide that satisfies Clause 5.5.5?"**
   Listen for: a signed report including calculation basis, load case, calculations, signature, qualifications, and date. If the answer is "a sign-off letter" or "a wind load PDF", the answer does not meet V6.0.
5. **"Are you BS EN 1991-1-3 snow drift competent for parapeted roofs?"**
   Listen for: yes, with explicit reference to UK National Annex drift coefficients. Snow drift on parapeted flat roofs is a common V6.0 audit point that was often glossed in V5.0 reports.
6. **"Do you carry Professional Indemnity insurance, and at what level?"**
   Listen for: at least £5M PI in place. PI level signals the scale of work the engineer is set up for and protects the install in the event of a structural defect claim downstream.
7. **"What is your turnaround time from instruction to engineer-signed report?"**
   Listen for: a defined target. 48-hour delivery is the benchmark for desktop assessments; 48 hours from site visit is the benchmark for on-site surveys. If the answer is "a few weeks", the engineer is not set up for the volume an MCS-licensed installer needs.
8. **"How do you handle SPRA S15-19 pull-out testing?"**

Listen for: pull-out testing is performed where penetrating fixings are used on metal sheet roofs, with documented results retained as part of the assessment evidence pack. If they have not heard of SPRA S15-19, instruct someone else for any metal sheet install.

9. **"How do you handle installs above MCS scope?"**
Listen for: Eurocode 1 plus Building Regulations Approved Document A directly, without MCS-specific layering. The engineer should be able to handle both sub-50kWp (MIS 3002) and above-50kWp (Eurocode plus Building Regs) installs without confusion.

10. **"Will your report be accepted by lenders, DNOs and MCS auditors first time?"**
Listen for: yes, with a track record of first-submission acceptance. Reports that trigger lender or auditor revision cycles slow the install pipeline and cost the installer commercial credibility.

Use the questions in writing. Send the ten questions as a pre-instruction email and ask for written answers. The answers form part of your due-diligence record on engineer selection. Engineers who give precise answers to all ten are competent under V6.0. Engineers who answer vaguely or skip questions are not.

SECTION 10

Pre-flight checklist. One printable page.

A single-page checklist for use on every quote. Print, laminate, keep in the survey kit. Validates any install against V6.0 before quotation is issued.

Stage 1: Site survey

- Roof typology identified (pitched / hipped / valley / dormer / parapet / flat / asymmetric)
- Roof pitch measured (flag if below 30 degrees)
- Roof condition assessed (flag if any visible distress: deflection, cracking, sagging, end-of-life condition)
- Substrate identified (slate / tile / metal sheet / single-ply / built-up felt / asbestos cement / other)
- Mounting method identified (penetrating fix / clamp fix / ballast)
- Photographs captured for the structural evidence pack

Stage 2: Section 5.9.6 trigger check

- Hipped roof? If YES, qualified SE pathway required
- Valley roof? If YES, qualified SE pathway required
- Asymmetric duo-pitched? If YES, qualified SE pathway required
- Dormer present? If YES, qualified SE pathway required
- Parapet present? If YES, qualified SE pathway required
- Pitch below 30 degrees? If YES, qualified SE pathway required
- Any structural distress visible? If YES, qualified SE pathway required

Stage 3: Section 5.9.13(h) ballast check

- Flat-roof ballasted install? If YES, qualified SE pathway mandatory regardless of array size

Stage 4: Pathway decision

- If any Stage 2 or Stage 3 trigger fired: qualified SE engagement scoped and priced into quote

- If no trigger fired: competent-person assessment scoped (internal capacity OR external competent person)

Stage 5: Clause 5.5.5 documentation pack

- Calculation basis documented (standards, load case, assumptions)
- Wind load calculation per BS EN 1991-1-4 + UK NA + BRE Digest 489
- Snow load calculation per BS EN 1991-1-3 + UK NA (with drift where parapets present)
- Dead load assessment (array, mounting, ballast where applicable)
- SPRA S15-19 pull-out test results (where penetrating fixings on metal sheet)
- Engineer signature with name, qualifications, and date
- Full pack retained for MCS audit trail per Clause 5.5.5

Stage 6: Pre-MCS-submission validation

- Structural evidence pack complete and current (within 12 months)
- Engineer-signed report attached
- Section 5.9.6 trigger assessment recorded (even where no trigger fired)
- Section 5.9.13(h) check recorded
- Submission ready for MCS audit on request

SECTION 11

Glossary and further reading.

Glossary.

BRE Digest 489 (2014).
Building Research Establishment guidance specifically on wind loads applied to roof-mounted PV. Provides PV-specific pressure coefficients that overlay BS EN 1991-1-4. Required reading for any wind calculation on a PV install.
BS EN 1990.
Eurocode 0 · Basis of structural design. Sets the load combination framework that BS EN 1991 series loads feed into.
BS EN 1991-1-3.
Eurocode 1 Part 1-3 · Snow loads, with UK National Annex. Replaces older snow load codes. Always use UK NA for UK installs.
BS EN 1991-1-4.
Eurocode 1 Part 1-4 · Wind actions, with UK National Annex. Replaces BS 6399-2:1997 (withdrawn 2010). Always use UK NA for UK installs.
BS 6399-2:1997.
The previous UK wind loading standard. Withdrawn in 2010 and superseded by BS EN 1991-1-4. Should not appear as a current reference in any 2026-onwards structural assessment.
Building Regulations Approved Document A.
The structural duty under Building Regulations in England and Wales. Equivalent provisions: Section 1 Structure under the Scottish Technical Handbook, Technical Booklet D in Northern Ireland.
Documented evidence.
The standard required by MIS 3002 V6.0 Clause 5.5.5 for structural assessments. A step up from V5.0's "written confirmation". Includes calculation basis, load case, calculations, signature, qualifications, and date.
MCS.
Microgeneration Certification Scheme. The UK certification body for small-scale renewable installations including solar PV.
MCS-licensed installer.
A solar PV installer holding a current MCS Contractor licence. The installer's licence depends on compliance with MIS 3002 (and other MIS standards) on every install.
MCS 020 / MCS 032.
Product compliance standards for flat-roof PV (020) and PV generally (032). Sit alongside MIS 3002 in the wider MCS standards stack.
MIS 3001.
The general MCS installer requirements standard. Currently at Issue 5.1, mandatory from 17 October 2025.
MIS 3002.

The MCS structural standard for solar PV. Currently at V6.0 (issued 18 March 2026, mandatory from 18 June 2026). Sub-50kWp DC scope.
Qualified structural engineer.
An individual whose engineering qualifications and experience clearly meet the threshold for structural assessment of a solar PV install on a complex or non-standard roof. Typically a Chartered Engineer with IStructE or ICE membership, or a non-chartered structural engineer with documented evidence of equivalent training and experience.
Section 5.9.4.
The MIS 3002 V6.0 clause requiring a competent-person check on every install prior to installation.
Section 5.9.6.
The MIS 3002 V6.0 clause specifying seven roof conditions that mandate a qualified structural engineer (rather than a general competent person).
Section 5.9.13(h).
The MIS 3002 V6.0 clause making qualified SE assessment mandatory on every flat-roof ballasted install regardless of array size.
SPRA S15-19.
Single Ply Roofing Association test specification for fixing pull-out on metal sheet roofs. Required where penetrating fixings are used on metal substrate.
Suitably competent person.
The MIS 3002 V6.0 phrase used in Section 5.9.4. An individual whose engineering training and experience are appropriate to the structural assessment in front of them. Documented qualifications and experience evidence support the "suitably competent" judgement.

Further reading.

Deeper Solar Surveys reference pages:

- MCS Compliance · verbatim regulatory quotes, V5 vs V6 changes detail, mandatory dates
- For Solar Installers · how Solar Surveys works with MCS-licensed installers at scale
- Desktop Structural Roof Loading Reports · remote structural assessment from £130 per report, 48-hour delivery benchmark
- On-Site Structural Surveys · site survey from £600 per building, 24-hour mobilisation target
- Solar PV on Built-Up Felt Roofs · flat-roof ballast specific reference
- Solar PV on Single-Ply Membrane Roofs · warranty interaction, ballast distribution
- Solar PV on Asbestos Cement Roofs · CAR 2012 plus structural framework
- Glossary · 72 plain-English definitions of every technical term used across the site

External standards (UK):

- MCS Standards Library at mcscertified.com (MIS 3002 V6.0 source)

- BRE Digest 489 via the Building Research Establishment
- BS EN 1991 series via BSI
- SPRA S15-19 via the Single Ply Roofing Association

SECTION 12

About the authors.

Solar Surveys Ltd is a specialist UK engineering practice for commercial solar PV. Pre-construction structural engineering is consistently the bottleneck that stalls solar pipelines, delays installations and erodes margins. We built Solar Surveys to close that gap: a specialist practice, qualified structural engineers, designed for the volume and speed that the commercial solar sector now requires.

What we do.

Six core services for commercial solar PV:

1. **Desktop Structural Roof Loading Reports.** Engineer-signed Eurocode-verified report from drawings plus satellite, no site visit required. From £130 per report (residential / new-build), from £150 per report (commercial). 48-hour delivery benchmark from receipt of all required client information. Volume capacity 2,000+ per month.
2. **On-Site Structural Surveys.** Qualified structural engineer attends site. From £600 per building. 24-hour mobilisation target. 48-hour report delivery from site visit.
3. **Drone Roof Condition Assessments.** BDF and BMFA accredited pilots, £25M Drone Public Liability. From £750 per building (drone-only) or combined with structural survey for shared mobilisation.
4. **Drone Technical Surveys.** Photogrammetric capture of the full building envelope for industrial and large-span structures.
5. **Solar Design.** Layout, inverter spec, yield modelling, with G99 and G98 DNO connection application support.
6. **Planning Permission Support.** Permitted Development eligibility assessment, full planning applications.

Standards anchor.

Every report is signed by a qualified structural engineer and produced to the format required by commercial lenders, DNOs, MCS certification bodies and planning authorities. Standards anchor: BS EN 1991-1-4 wind with UK National Annex, BS EN 1991-1-3 snow, BS EN 1990 load combinations, BRE Digest 489 PV-specific wind coefficients, Building Regulations Approved Document A. For systems within MCS scope (sub-50kWp DC), reports also align to MIS 3002:2025 V6.0 Section 5.9.

Why this guide is published free.

The 18 June 2026 mandate is real and the margin for error narrows the closer the date gets. The MCS-licensed installer base needs accurate plain-English V6.0 explanation more than it needs another sales pitch. We publish the guide free because closing the V6.0 understanding gap across the installer base is in the long-term commercial interest of every credible structural engineering firm in the sector.

There is no in-body sales pitch in this guide. The single CTA below is opt-in only.

For installers who want to commission compliant structural work directly.

Solar Surveys is set up to deliver V6.0-compliant structural assessment for MCS-licensed installer programmes at any scale, from single-site quotes to portfolio-level batch instructions. Volume capacity is 2,000+ desktop reports per month with a 48-hour delivery benchmark and a 24-hour mobilisation target for on-site surveys.

To commission, contact Solar Surveys at:

- **Phone.** +44 141 628 9009
- **Email.** contact@solarsurveys.co.uk
- **Web.** solarsurveys.co.uk/contact.html
- **Address.** 24 Potterhill Road, Glasgow G53 5RR, United Kingdom

Insurance and accreditation.

£5M Professional Indemnity. £25M Drone Public Liability. BDF (British Drone Flyers) and BMFA (British Model Flying Association) accredited drone pilots. Coverage: United Kingdom, Northern Ireland, Republic of Ireland, and Europe for cross-border portfolio programmes. Solar Surveys Ltd, registered in Scotland, Company No. SC827786.

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