

Solar Panels

Question:

Is Building Regulation approval required for the installation of solar panels on the roof of existing buildings? What parts of the Building Regulations apply? Are Building Regulations needed for solar panels if an installer is enrolled on a Competent Persons Scheme? Does structural survey have to be done on the roof when using Competent Persons Scheme?

Answer:

Each would need to be considered under its own merits, but generally under strict interpretation such works would require approval and an application submission under the Building Regulations.

The relevant parts of the Building Regulations that apply;

- Part A - to assess the loadings imposed (lift as well as dead load)
- Part C - adequate provision for entry of pipes through the roof covering
- Part P - if any electrical pump/fittings are involved

Solution:

(1) Self-certification: Some Competent Persons Schemes do require their members to address all relevant aspects of Building Regulations (parts A, C and P). Using an installer that takes advantage of this requires no Building Regulation application submission.

Recognised Competent Persons Schemes (CPS) - the Microgeneration Certification Scheme (MCS) and NICEIC Domestic Installer Scheme.

(2) Building Notice: An alternative option would be for a Building Regulation application to be made to the local authority for all elements of the installation, and bypass the Competent Persons Scheme route.

Building Control Considerations:

- Regulation 3 defines Building Work as 'Installation of a Controlled Service or Fitting'
- Additional loading to a roof structure constitutes a material alteration if the loading is increased by 15%
- Solar panel and total rafter loadings to existing roof structure

Typical Example:

Solar panel fitted mass of around 20 kg/m². Average total rafter load of around 140 kg/m², the addition of 20 kg/m² would represent an increase in loading of some 15%.

(1) Trussed rafters - single row of solar panels considered acceptable, without further structural investigation.

(2) Traditional rafters/cut roof – any solar panel loading to be investigated by a structural engineer, bending stresses at capacity.