Roofing Work – Solar – Gas Chimneys/Flues V3

Information Sheet 006 - IGEM Large Business Forum - 01.02.2026

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Background

This Information Sheet is for guidance when encountering or undertaking roofing work especially Solar Panel installations both thermal & photovoltaic (PV) that may adversely affect gas chimneys/flues. Solar installations are and will be in the future, on the increase. Incidents are being identified regarding Solar Panel arrays too close to chimneys/flues and their terminals and in some cases causing damage.

It is increasingly important that RGE's check roofs for solar panel installations when undertaking appliance work that may have a chimney/flue exiting through the roof.

Also, if your organisation undertakes roofing work and/or solar panel installations ensure that the responsible person/department understands the dangers of working near or interference to chimneys/flues and other gas fittings.

Issues

Chimneys/flues being disturbed, obstructed, covered, moved, altered during the installation of Solar panels and other roofing work could endanger the safety of those within the property, and of those undertaking such work.

Solar panels could alter the natural airflow over the roof surface; this could create turbulence that trap or redirect flue gases. Instead of dispersing upward and away, gases could linger or recirculate near the roof surface.

Solar panels could create localised heating on the roof, affecting the buoyancy of flue gases. Warmer surfaces could cause gases to rise more slowly or spread laterally. If flue gases are redirected by solar panels toward nearby windows or vents, there's a risk of re-entry into the building.

To ensure safety and optimal performance, solar arrays should be suitably distanced from chimneys, flues and vents. This is for gas safety and maintaining adequate clearance to prevent shading, ensure proper ventilation, and allow for maintenance access. The following provides guidance for <u>minimum</u> distancing of solar panels from chimneys/flues and terminals predominantly in a domestic situation:

Maintain 300 mm minimum clearance from solar panels to any Chimney/Flue or Terminal

Note 1: Although it may not be directly stated in current legislation or standards this Information Sheet 006 is classifying solar panel arrays as a potential "obstruction"

Note 2: Where distances greater than 300 mm have been specified in the installation design requirements these must be adhered to

Note 2: Greater distances may be required within commercial situations e.g. grouped terminals

(Gas = HSE GSIUR ACoP L56 + Domestic = BS5440 + I&C = IGEM/UP/10)

Recommendations/Actions:

RGE gas installation or service/maintenance work (Domestic)

1. When installing a gas appliance chimney/flue ensure there is a minimum distance of 300 mm from the nearest edge of any solar panel installation.
2. When working on gas appliances that has a chimney/flue exiting through a roof check the roof outside for solar panels and appliance termination. *This is a best endeavours visual assessment to ensure there is a minimum of 300 mm distance between them.*

Organisation undertaking roof work and/or Solar Panel installation (Domestic)

1. Site Assessment: Conduct a thorough site assessment to identify the location of all flue terminals, vents and windows on the roof before solar panel installation.
2. Design Planning: Incorporate the identified locations into the solar array design, ensuring that the minimum distance of 300 mm clearance is met. Exercise extra caution where vents, flue terminals and roof openings e.g. Velux windows are combined on a roof layout.
3. Installation: Ensure a minimum distance of 300 mm from the nearest edge of any solar panel to chimneys/flues is within the site assessment and design, and installation meets these requirements.
4. Perform a shading analysis to determine the potential impact of chimneys/flues on solar panel performance. Adjust the panel layout as necessary to minimise shading.

All - remember 'commercial' situations may require greater distances – seek advice!

Further information, advice and related guidance

- Legislation: Gas Safety (Installation& Use) Regulations *(Particularly Regulation 8)*
- Building Regulations *(Particularly Approved Document J)*
- Institute of Gas Engineers and Managers: **igem.org.uk**
- Gas Safe Register visit: **GasSafeRegister.co.uk.**
- National Association of Chimney Engineers (NACE) - **info@nacegroup.co.uk** - 01223 774477
- BSI: **bsigroup.com/en-GB/**
- BSEN15287 - Chimneys. Design, installation and commissioning of chimneys
- IGEM/UP/10 Installation of flued gas appliances in industrial and commercial premises
- IGEM/G/5 Gas in Multi-Occupancy Buildings
- BS5440 Pt1 :2023 Chimneys, flue pipes and ventilation for gas appliances of rated input not exceeding 70 kW net (1st, 2nd and 3rd family gases). Design, installation, commissioning and maintenance of chimneys. Specification
- BS 6798: Specification for Selection, Installation, Inspection, Commissioning, Servicing and Maintenance of Gas-fired Boilers of Rated Input Not Exceeding 70 KW Net