Photovoltaic

- Design considerations
- Examples
- Fixing methods
- Monitoring
- Servicing
Design considerations

- Available space
- Orientation / shading
- Roof obstructions
- Material selection
- Security
Inverter siting - security
Examples

- Roof integrated
- Photovoltaic slates
- On-roof
  - Cheaper
  - Better cooling
  - Quicker install
  - Easier replacement
  - Greater choice
Fixing methods

- Tile
- Slate
- Metal profile

To suit housing stock
Monitoring

- Notification of malfunction
- Validation
- Revenue
Servicing

- Minimal servicing requirements
- No moving parts
- Long component life
PV summary

- PV systems require space
- Orientation and pitch
- No shading or obstructions
- Versatile installation options
- Monitoring solutions available
- Minimal service requirements
Solar thermal

- Design considerations
- Collector types
- Fixing methods
- Storage
- Servicing
Design considerations

• End user requirement
• Orientation / shading
• Roof obstructions
• Collector choice/mounting option
Examples

- Roof integrated flat plate collector
- On-roof – pitched or flat
- Evacuated tube collectors
Fixing methods

• Tile
• Slate
• Metal profile / standing seam

To suit housing stock
Monitoring

- Error reporting
- Validation
- Revenue
Servicing

• Annual servicing required
• Transfer fluid – limited life
• Pumps, expansion vessels – likely fail points
• Conservative design will maximise system life
Thermal summary

• Similar requirements to PV
• Storage provision
• Usage and efficiency
• Versatile installation options
• Monitoring solutions available – not as vital as with PV.
• Regular maintenance
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Renewable Energy Technologies

We have extensive experience in the design, supply and installation of solar water heating systems and photovoltaic systems for small and large scale domestic customers, as well as for a wide variety of commercial and public sector clients throughout the UK.

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