

We have built a solid reputation for delivering highly efficient solar systems over the past 25 years.

Working with our clients to help them decarbonise their operations drives us to be innovative and professional across all aspects of our work, always looking at ways in which we can help drive down their energy costs and increase energy stability & security.

This brochure summarises our solar thermal system: LaZer2 and there is more information on our website at www.solaruk.com or www.laZer2.co.uk



SOLAR THERMAL



LaZer2 solar thermal is specifically designed to produce hot water.

SOLAR THERMAL

Our LaZer2 solar collector is one of the most efficient in the world. We have designed our collectors, which are manufactured at our factory in East Sussex, to be c.3.5 to 4 times more efficient at generating hot water than the equivalent area of solar PV and they can deliver c.70% of a building's hot water demand each year.

- Audited annually by the UK government's BBA to ensure LaZer2 remains an approved technology
- Delivering temperatures of above 60°C that are generally required in commercial buildings
- LaZer2 solar thermal delivers hot water to site for immediate point-of-use or as a pre-heat for wider applications
- As a pre-heat during winter months, energy savings are still strong, as water can be regularly pre-heated to 40-50°C meaning the backup heating often only needs to input ½ the total energy otherwise required

Efficiency of a LaZer2 solar thermal system hardly drops when delivering water at 60°C, and when combined with a heat pump it significantly increases the pump's service life, as well as retaining the fuel saving advantage, with summer solar gain almost eliminating heat pump usage for ½ the year.

SOLAR THERMAL

In hotels, care & nursing homes, student accommodation, schools, colleges, and universities, in fact any situation where large numbers of people gather outside the home, hot water usage is often significantly higher per occupant than it would otherwise be, and yet still the water is discharged as waste.

The higher water usage of swimming pools, spa facilities, and showers, sees increasing benefits of deploying LaZer2 hot water heating because these energy-hungry operations generally demand more energy than the available roof space can deliver from a solar PV solution. Furthermore, because 100% of solar-generated heat directly offsets what would otherwise have come from alternatives, the financial return on investment is usually far greater.

Where hot water is used in commercial environments and in industrial processes, LaZer2 solar thermal holds its own as the true renewable energy solution and has a vital part to play in any decarbonising plan.

From hospitals to laundries, agriculture and dairy, to brewing and food processing, there is huge demand for hot water for cleaning down and sterilisation, or as part of their production and operating processes.

New for 2025 is our LaZer2 solar thermal remote monitoring system (RM7512), which allows us to view any critical changes to the operation of your solar thermal system and ensure its continued performance. Talk to our team about how this can aid your commercial installation.

Project Review

Building Decarbonisation

The New Bodleian Library, Oxford.

The M&E contractor for this project, driven by the need to meet Part L of Building regulations, specified LaZer2 solar thermal to supply the site's hot water.

The building is listed and in an area of significant historic interest and it receives global media and academic exposure. We were tasked with designing a scheme of such low profile as to hide the collectors behind the roof parapet and ensure that it could not be seen from the top floor of the original Bodleian Library across the road.

Working with both the client and the main contractors, we delivered a scheme that surpassed the client's expectations.



We designed, supplied, and installed 25m² of LaZer2 solar thermal collectors, feeding into the site's DHW infrastructure, providing 21MWh-th of hot water and reducing the reliance on gas. Our 3-man team led by lead LaZer2 installation engineer, Nick Martyn, and project managed by our Technical Director, Duncan Lee, installed and commissioned the system in c.6 weeks.



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Image: Reef Leisure Centre, Norfolk

Project Review

Health & Leisure

The Reef Leisure Centre, Norfolk.

The architects on this project had specified LaZer2 solar thermal to meet Part L of Building Regulations and to adhere to Norfolk County Council's carbon reduction plan.

The site has a 25-metre heated swimming pool, with a teaching pool and a splash pad play area.

We designed, supplied, and installed 120m² of LaZer2 solar thermal collectors, feeding into the site's hot water infrastructure,



The system provides 74.56MWh-th of hot water and reducing their reliance on gas.

Our 4-man team led by our lead LaZer2 installation engineer, Nick Martyn, and project managed by our Technical Director, Duncan Lee, installed and commissioned the system in c.2 months.



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Project Review

C&I Process

HCA Healthcare, UK

Established in the UK in 1995, HCA operates more than 300 hospitals worldwide including 30 facilities in the UK, their latest being a new-build hospital in Birmingham.

The architects, driven by the Part L building regulations, where there is a need for a minimum 10% offset of energy costs with the incorporation of renewables, and a wider need for estate decarbonisation, specified rooftop solar thermal.

SolarUK had presented at a CPD event for the architects and previously installed solar thermal at another of their projects, The Birmingham Dental Hospital.



For this site, we supplied and installed 100m² of LaZer2 solar thermal collectors, feeding into the site's LTHW infrastructure, providing 50.9MWh-th of hot water and reducing the reliance on gas.

Our 4-man team led by lead LaZer2 installation engineer, Nick Martyn, and project managed by our Technical Director, Duncan Lee, installed and commissioned the system in c.2 months.



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Project Review *Hotel*

Central London Hotel

We were approached directly by the client's QS, looking for a cost saving on their gas-fired hot water system, and having specified LaZer2 solar thermal.

We designed, supplied, and installed 143m² of LaZer2 solar thermal collectors, generating c.93.4MWh-th.

Our 4-man team led by lead LaZer2 installation engineer, Nick Martyn, and project managed by our Technical Director, Duncan Lee, installed and commissioned the system in c. 3 months.



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Project Review *Industrial Process*

John Gosnell & Co. Ltd., East Sussex.

This long-established local business manufactures perfumes and toiletries at its production facility in Lewes, East Sussex.

They found us via our website, and we were approached by the building contractor working on their premises, to design a solar thermal system to feed hot water into their manufacturing process and reduce the cost of their gas-fired process.

We designed, supplied, and installed 15m² of LaZer2 solar thermal collectors, generating c. 11.25MWh-th.



Our 3-man team led by lead LaZer2 installation engineer, Nick Martyn, and project managed by our Technical Director, Duncan Lee, installed and commissioned the system in just c.3 weeks.



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The LaZer2 solar thermal collector is an established market leader, built at our factory in East Sussex and designed specifically for the Northern European climate.

LaZer2 can be specified as part of a building's decarbonisation strategy, in both commercial and domestic use.

The LaZer2 collectors can be mounted on both sloping and flat roofs, and on a building façade (subject to structural integrity testing).

- BBA certified – British Board of Agreement
- MCS-approved
- Tested to EN12975 for both performance and quality
- 10-year product warranty
- 25-year performance warranty*

* When serviced annually by our engineers



PERFORMANCE AND PHYSICAL SPECIFICATIONS

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|------------------------------------|---------------------------------------|----------------------------|---------------------------------------|
| Absorber Area: | 0.80m ² | Design Life: | >25 years |
| Aperture Area: | 0.93m ² (1m ²) | Vacuum Tube: | High Borosilicate Glass |
| Gross Area: | 1.35m ² | Tube Diameter: | 58mm |
| Total Length: | 2100mm | Tube Length: | 1960mm |
| Total Width: | 605mm | Vacuum: | P = 5 x 10 ⁻² Pa |
| Total Depth: | 108mm | Absorber: | AL-N/AL |
| Total Depth incl. manifold: | 125mm | Efficiency: | > 93% (optimum) |
| Total Weight: | 43kg | Operating Pressure: | <6 bar |
| Absorber Plate Angles: | 360° | Max. Idle Temp.: | 239°C |
| Fluid Outlet Temp.: | 0-90°C | Tube Strength: | Tested to withstand a 25mm hailstone. |

Solar UK, established 2000, brings a breadth of knowledge and experience to help deliver your new energy project.

We are CHAS Elite, MCS, Trustmark and NICEIC-accredited suppliers and installers, with in-house R&D, design, and technical support.

We employ our own installations team, working with trusted sub-contracted labour when there is a need, ensuring that they always work to our standards and under our management.

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