cirrus

Solar Water Heating for Taller Buildings

aim higher

Aim Higher

Cirrus makes it simple for all the flats in high rise buildings to enjoy the benefits of solar water heating - right down to the ground floor, and without centralised heating systems.

- More cost-effective
- Individual heating systems
- No plant room
- Simplifies pipe-work
- Reduces heat losses
- Helps towards Code for Sustainable Homes
- Meet planning conditions

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viridian solar®

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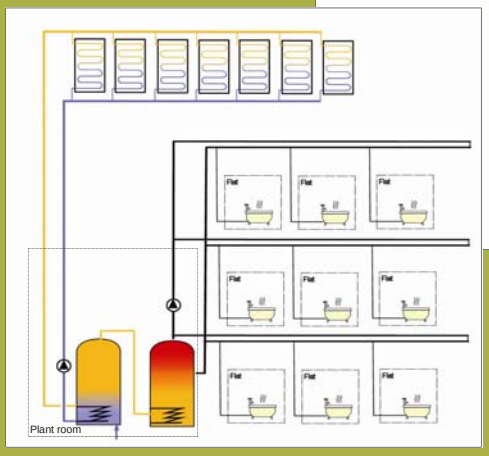
Solar Water Heating for Taller Buildings

Individual solar water heating systems start to reach a practical limit in multi-dwelling buildings once their height exceeds three storeys. Two pairs of insulated pipes linking dedicated solar panels on the roof to a hot water cylinder in each flat quickly add up to large service risers in taller buildings. Heat losses grow as pipe length increases, so lower floor flats see reduced energy benefits. Weather-tight penetrations need to be made to bring large numbers of pipes into the building.

Until now, the only other approach available was to combine the solar panels together into a communal system, heating large solar buffer vessels in a plant room as a pre-heat to a centralised hot water system. While this approach simplifies pipe runs, it creates new challenges. The plant room means giving up valuable habitable space, the centralised hot water needs to be distributed to the dwellings - either free of charge (with a risk of over-use) or requiring metering.

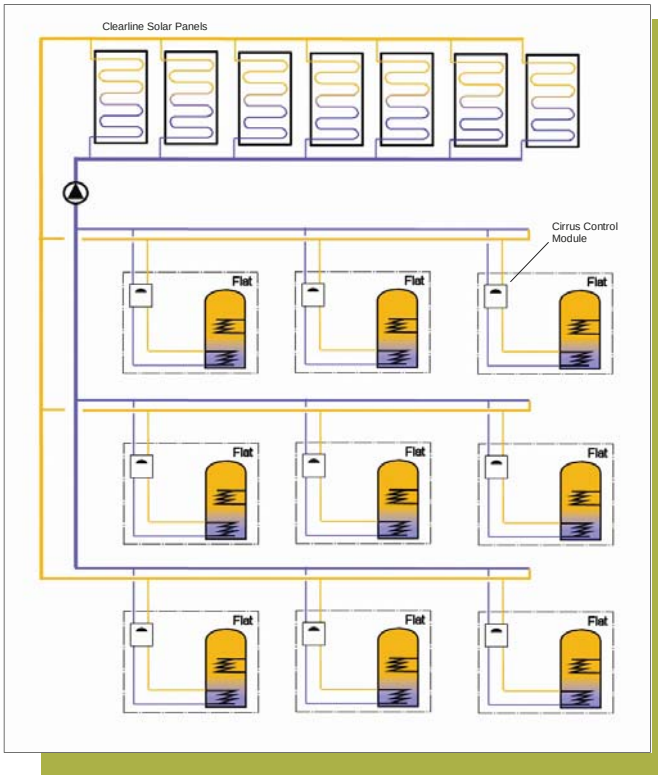
Individual Systems

- high heat losses
- complex
- large service risers



Communal System

- needs plant room
- billing for hot water
- high heat losses



Cirrus Communal Solar

The Cirrus system from Viridian Solar combines the strengths of the two conventional approaches, while eliminating the drawbacks of each.

Solar panels are grouped into a shared array, often reducing the number needed to meet energy targets. Only two pipes enter the building into the service riser. The solar heat is circulated past each flat where a Cirrus Control Module decides when heat can be added to the hot water cylinder. Flow balancing components ensure that each flat gets a fair share of the available heat.

On days when the solar does not achieve a high enough temperature in the cylinder, the heat is topped up by an individual boiler or immersion heater in each flat.

Cirrus makes solar simple for tall buildings.

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