

Heat from solar thermal collectors



Solar heat can be collected in various ways as a source of energy:

- Solar thermal collectors can heat up service water and drinking water, be used for space heating, and high-temperature process heat
- Passive solar energy can be used in architecture

Research and development requirements

- R&D into more efficient and more cost-effective large collector fields in the low temperature range, especially for the heating of buildings
- Development of improved long-term storage as an important component in a more intensive collector utilisation strategy
- Material research for alternative, ecologically friendly absorbers with good heat conductivity, anti-corrosive properties, and temperature resistance
- Development of new heat carrier media modified for absorbers
- Development of highly efficient collectors, including concentrating systems for industrial and commercial process heat (also in conjunction with combined heat and power) as well as desalination of sea water
- Development of model-based networked control systems and remote monitoring processes
- Development of switchable absorption surfaces on building envelopes
- Development and implementation of parameters for the logging of the solar energy yields of various systems

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