



Zero Carbon IT Server Room Cooling

Climate Control with balanced grid support



IT Room

Solar-powered 24/7 cooling with automatic humidity control and Thermal Energy Storage

Solar power freezes an ice wall by day, it melts to provide cooling through the night and outages

Proven Performance

Typical 35sqm IT Room	Result	Unit
Energy Use (Grid/Generator) Max	220	kWh/day
Energy Use (Sun-Ice Energy)	0	kWh/day
Daily Reduction	100	%
Off-Grid Uptime	24	Hours

Source: IT room in Shanghai China

Tangible Results



Financial

- €0.07/kWh with solar and PCM storage
- €0.04/kWh daytime solar cost
- €0.03/kWh night time pcm storage cost
- Investment payback period: 2 years or less



Operational

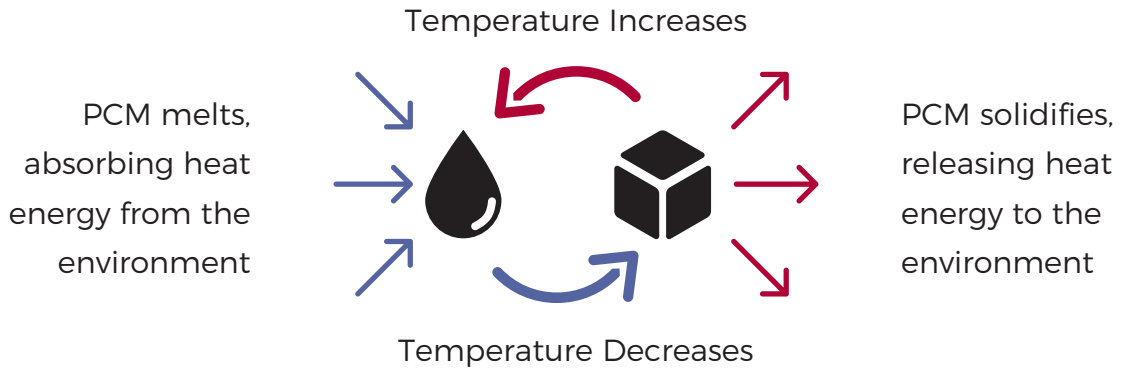
- 100% uptime for cooling & dehumidification
- 24/7 stable comfort, server protection & health



Environmental

- 63 tons CO₂ avoided/year
- Like taking 23 cars off the road

Our solution centers around our patented ACTIVE PCM technology



Using integrated technology, captured **solar or other intermittent energy is stored in PCM**



PCM is a substance that releases/absorbs large amounts of latent energy through a phase change between liquid to solid



System Schematic:

