



Zero-carbon Office & Industrial Cooling

Technology Ready • Zero-Carbon Cooling & Heating Today



ATEQ Group Shanghai Headquarters Building

Sun Ice Energy uses PCM to store PV-generated cooling energy, enabling a zero-energy building HVAC system

Proven at industrial scale

Flagship project: Shanghai, China – 4,000 m² PV system supplying a 25,000 m² office and industrial building, achieving an annual return on investment of **€330,000** per year.

The building exceeds the **Green Mark** certification standard.

Sun-ice energy's solar-driven thermal system has been **fully validated** in large-scale office and industrial complexes, providing cooling and heating while achieving net-positive energy performance.



Solar-powered



Grid-balanced



Efficient Climate Control

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: 7 years or less



Operational

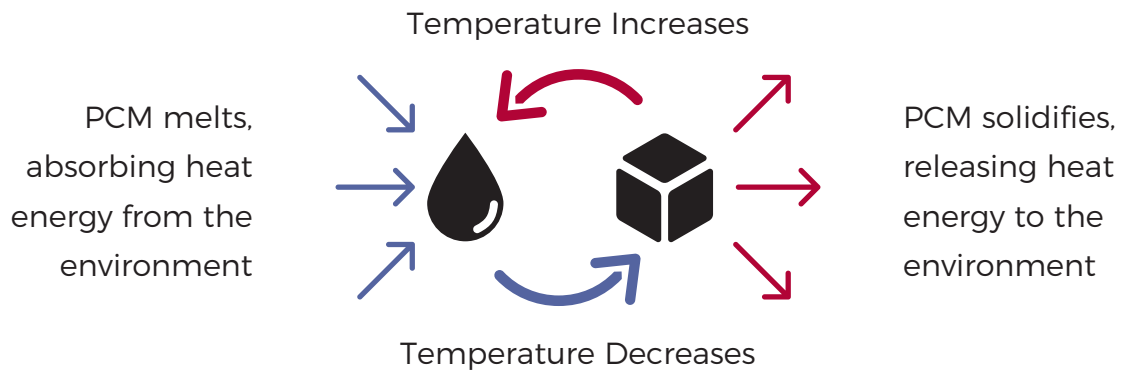
- 24/7 cooling, heating & dehumidification
- Stable indoor conditions year-round



Environmental

- Net-positive annual energy balance
- Significant CO₂ reduction
- Exceeds Green Mark efficiency thresholds

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:

