



The Solar Ice storage system

Heating and cooling with the power of nature



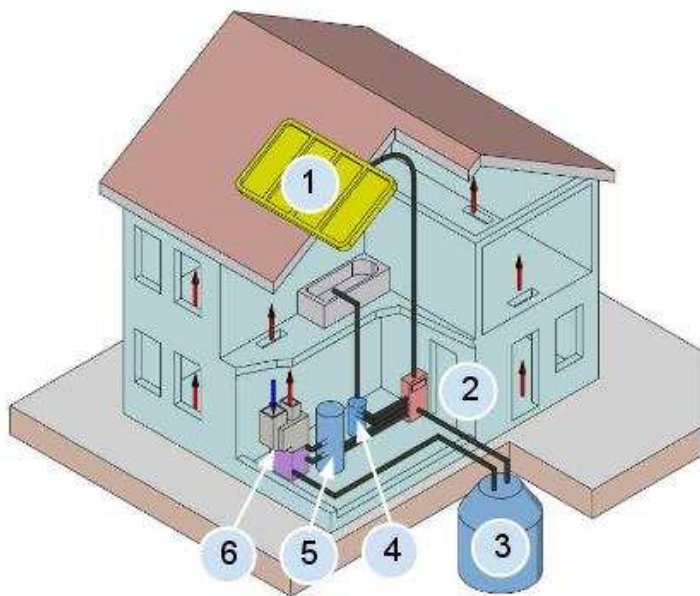
The Solar Ice storage system is the only heating or air conditioning system that uses the same five **free, clean and renewable** energy sources, **Sun, Air, Earth, Water** and **Ice**. The changing energy sources are stored throughout the year at low temperatures in the Solar Ice storage system. A control technology then makes them available if needed for heating or cooling.

The Solar Ice storage systems reduces your carbon footprint and utility bills at the same time. This new revolutionary system uses free, renewable energy sources and could save you 50% on heating and 99% on cooling costs.



The Solar Ice storage conserves energy and protects the environment

In combination with a heat pump, the Solar Ice system provides heating in the winter and cooling in the summer.



1. Solar collector

Provides Solar / Air energy

2. Control unit

Solar Ice Manager unit

3. Ice Storage

Stores the Sun/Air/Earth energy in water or Ice

4. Hot water storage

Provides hot water throughout the year

5. Heating buffer

6. Heat Pump

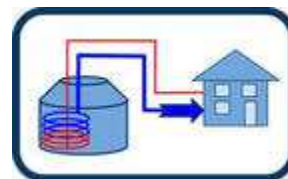
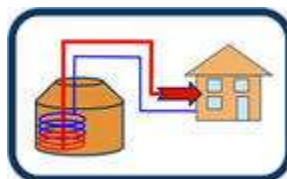
Heats your house with free, clean and renewable energy

In the heating phase, the heat pump uses the stored energy from the water as a heat source until the water freezes. In summer the stored cold energy in the ice can be used for cooling as needed. This improves the energy balance of the heat pump efficiency and drastically reduces carbon dioxide emissions.

This process can be repeated permanently and is absolutely safe for the environment and therefore holds no risk for the client.

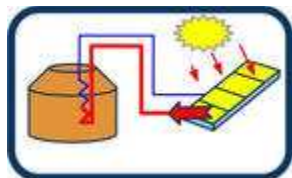
Save sunlight for the winter und ice for the summer

- **In winter** use the stored heat energy of the last summer for heating.
- **In summer** use the stored cold energy of the last winter for cooling.
- **In spring and autumn** use the daily stored heat energy by night and the nightly stored cold energy by day.

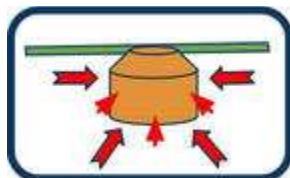


Store free renewable energy when available

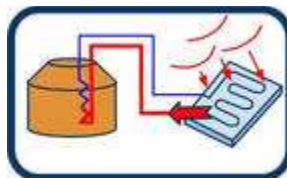
Store free renewable energy throughout the year from Sun, Earth and Air



Energy from Sun



Energy from Earth

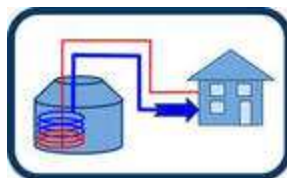
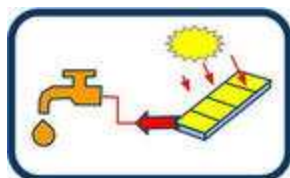
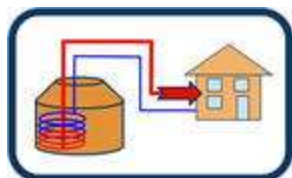


Energy from Air

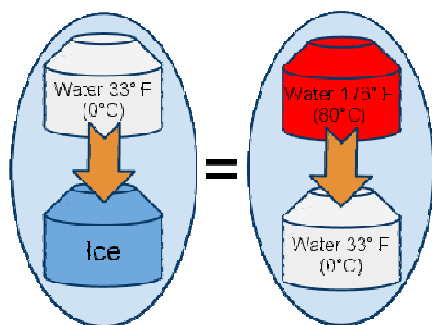
Use free renewable energy when needed

Use free renewable energy for heating or hot water treatment.

Use free renewable energy for cooling



Large energy storage due to crystallization energy



Freezing of water at 33°Fahrenheit (0°degrees Cel sius) to Ice produces **the same amount of energy** (crystallization energy) you get from hot water at 176°Fahrenheit (80°degrees Celsius) cooling down to 33 Fahrenheit (0 degrees Celsius).

Huge amount of energy due to crystallization energy

Commercial Systems

The SolarEis principle can be used in office buildings, greenhouses, sports halls, hotels and shops. In addition to offering an economic and security benefit, the Solar Ice System contributes to an environmentally friendly image for the client involved.

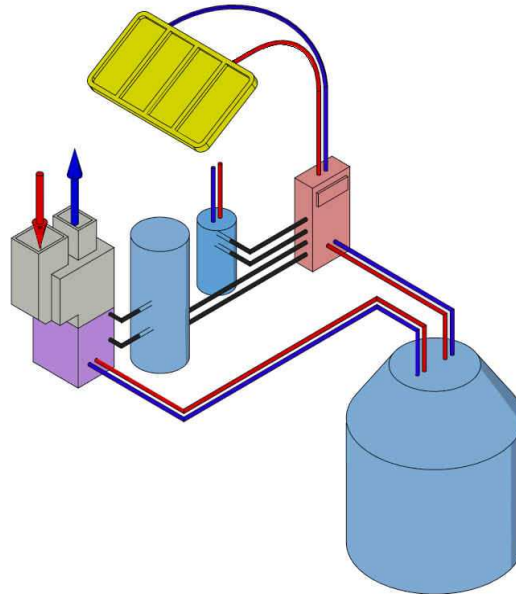
In the future, customers will have to look carefully at who they get their products and services from and consider the social commitment of their partners. Our customers (for example from the hotel business) now even promote themselves successfully with their energy balance.

Single family home System SE 12

The heat source system **Solar Ice SE 12** is designed to operate with brine / water heat pumps for heating buildings with a maximum of 7.5 kW heating load designed (monovalent operation with 1800 full operating hours).

The heat source system **Solar Ice SE 12** is a bundle consisting of:

- 1 x 12 m³ Solar Ice storage
- 5 x Solar Ice collector
Roof mounting kit included
(Optional flat-roof stands at an additional cost)
- 1 x Solar Ice Manager SE Basic



Remark

Other individual systems like the **Solar Ice SE 38**, or systems up to 1000 m³ Solar Ice storage are available.

Solar Ice Manager



The Solar Ice Manager is the central control unit of the SolarIce storage system SE 12.

The integrated system allows the distribution of solar heat on 3 levels (domestic hot water heating and storage SolarEis) for optimal utilization of solar heat to maximum yield.

If necessary, individual layers are deactivated when no domestic hot water is available.

The Solar Ice Manager unit allows easy and time saving installation and is operational in a few easy steps.

Benefit

- With an ice storage system you are independent of other energy sources.
- Unlike groundwater, deep wells or land register, you don't need an lengthy approval process.
- The Ice storage system is inexpensive and its cost can be recouped in no time.

New construction or renovation

Private building owners

Those who dare, who build, want to do everything right! Keep construction and energy costs down, quality and energy efficiency up. Whether turnkey or customized with a developer to build with architects - the Solar Ice system is right for you.

More and more builders and renovators choose the combination of different renewable energy sources. Energy-conscious living and save on heating costs is becoming more important because heating and hot water in the average household comprise about 70 percent of energy consumption.

Secure

Solar Ice is safe and protects against unpleasant surprises

Security and independence are two very important aspects that will play an increasingly important role. When choosing the Solar Ice System, future energy price increases won't ever harm you.

The energy savings during heating is about 50 - 60 percent. While other heating system to use, at best, two renewable energy sources, Solar Ice uses up to five renewable energy sources (solar, wind, earth, water and ice) and therefore is clearly superior to other systems in terms of flexibility.

Geothermal wells provide a massive intrusion into nature. It happens again and again that in the area of ground probes massive damage is caused. In many cases, the involved parties are in dispute for years over who must pay for the damage.

The Solar Ice system is brilliantly simple and requires very few components for which we provide extended warranty. By working closely with certified local partners, we ensure the timely exchange or repair of failed components.

Highlights

Reliable

While geothermal plants often suffer from reduced performance due to cooling of the ground or ice, provide the storage Solar Ice storage provides reliable results with no surprises.

Economical

Production and operating costs can be calculated reliably. After about six years, the investment costs will have been paid off by using renewable forms of energy. If energy costs continue to rise, your pay off time will be even shorter.

Effective

The Solar Ice storage system is fascinating and environmentally friendly. By integrating up to five energy sources, an optimum efficiency and high efficiency are achieved. The storage of energy in water and ice at low temperature level is cost effective. The effectiveness of the system is given even without the use of expensive insulation.

Ecofriendly

The Solar Ice storage system does not represent any danger to the groundwater, and can even be used in ground water protection areas. An approval process as for earth drilling is not necessary. The CO2 impact is almost zero.

Installation of a Solar Ice storage



Climate Protection Residential.

Pictures from inside the Solar Ice storage

Commercial unit: 400 m³ volume. 140 kW



Installation of a Solar Ice storage



Residential: 1 isocal storage unit. 12 m³ volume. 7.5 kW.



For more information please visit our Website
www.solaricetec.com