



CVT VALORISATION SUD

Energy

Solar air-conditioning

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Technology's description

This technology is based on a **solid-gas thermochemical reaction** that stores directly the thermal energy from the sun in order to transform it for cooling purposes. DACSOL system is the first completely autonomous (**off-grid**) **solar-based** air conditioning solution on the market.

It is an alternative to the common PV solution with a benefit in terms of reduced maintenance requirements, as well as reduced logistics for the parts, since the cold is stored in Phase Change Materials (PCM - battery free).

In the case you are running off-grid diesel generators, on the top of the above benefits, you may diminish a lot the surrounding noise and gas pollution. Also, if you don't get rid of fuel, you will reduce the consumption, oftentimes a major part of the operations cost.

These features are particularly beneficial in remote or off-grid locations. They can diminish the cost and provide additional revenue (waste reduction) from the farmers to the retailers, or simply improve the cold chain.

Advantages

- Entirely autonomous, self-regulated
- Improved cold chain management, remote & off-grid locations
- Field-proven : steady performances over time, battery less & no moving parts
- Operations: very low maintenance & logistics costs, totally silent.

Applications

- Perishable food preservation - telecom shelters AC cooling - vaccines preservation.

Intellectual property

Patent

Development level

System prototype demonstration in operational environment

1 2 3 4 5 6 7 8 9

Technology transfer

- Licence - Know-how
- Co-development



Source : Promes