

## Thermochemical Fluids in Greenhouse Farming

## Taking advantage of natural resources efficiently in greenhouses

2022 has come loaded with new realities.

We already had great challenges to face in Europe:

- Reduction of around 55% in greenhouse gas emissions by 2030, (Fit For 55)
- Climate-neutral by 2050
- Paris Agreement objective to keep the global temperature increase to well below 2°C
- European Green Deal and inside Farm to fork Strategy

## Climate and energy indicators for Europe from 2005 to 2100 derived from climate projections

(Copernicus Products by crediting the Copernicus Climate Change and Atmosphere Monitoring Services DOI <u>10.24381/cds.f6951a62</u>)



2100 temperature anomaly (RCP 8.5)

In a shifting geopolitical environment, the EU needs to continue strengthening its resilience and open strategic autonomy in critical sectors linked to the transitions. In the energy sector, intensified efforts are needed on green energy sources, replacing our reliance on fossil fuels (2022 Strategic Foresight Report).

In this context, TheGreefa is a technology that uses an inexpensive material (salt water) and contributes both the reduction of emissions gases and the use of renewable energy. TheGreefa takes advantage of solar energy and waste heat to maintain the greenhouse temperature and also achieves a level of cooling, air humidity control and water recovery

using thermochemical conversion.

Essentially it is a process that takes advantage of the source of solar thermal energy in greenhouses, and the water condensation that occurs inside it to recreate an ideal atmosphere for crops at the temperature and humidity level, through a technological innovation BAT-NEC, for greenhouse farming.

In this way, TheGreefa contributes against climate change, in an elementary model of circular economy and renewable energy sources.

Solar thermal technologies and other renewable energies benefit from several laws and decrees which facilitate their installation or financially support investors.

