



Webinar

Solar Thermal Energy in agriculture

Supporting technology uptake and political incentives

13th June 2023

How new generation
Solar Thermal Energy
systems contribute to
the EU Green Deal goals

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Northern and
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EU Green Deal

Fit for 55



ICARE4FARMS contribution to EU Green Deal goals

- **75% of EU greenhouse gas emissions come from energy use and production (2021)**
- Agricultural sector is a major energy consumer and represent 2.8% of total energy consumption in the EU
- ICARE4FARMS promotes **clean, affordable and secure energy**
- The aim of next generation Solar Thermal Energy systems is to supply at least **50% of a farms energy needs**



Project results: energy savings & CO₂ reduction

Estimated from running STE systems installed as part of ICaRE4Farms project:

- French pilot site running since 2021
- 3 pilot sites installed in early 2023

Projections at +5years and +10years

- 17 applicant sites (call for applications 2023)
- Dissemination activities & market roll-out

French pilot site

Installed on a calf farm in Western France

Results for 2 years (since mid-June 2021 until now):

- Energy savings : 103 000 kWh
- Equivalent cost savings : \approx 8 250 €
- CO₂ reduction : 23,2 tonnes

Forecast 2023 for 4 sites

With 3 additional sites running since early 2023, the forecast for the year 2023 is:

- Energy savings : 256 000 kWh
- Equivalent cost savings : \approx 51 200 €
- CO₂ reduction : 61 tonnes

Total CO₂ reduction estimation by the end of the project : **168,75 tonnes** (for 4 pilot sites + supported sites as part of the project)

Future forecasts

Estimation + 5 years

- CO₂ reduction : 2 000 tonnes CO₂/year
- Estimated number of sites in North-West Europe : +300 STE systems (after 2023, 10 new sites per year per country)

Estimation + 10 years

- CO₂ reduction : 10 000 tonnes CO₂/year
- Estimated number of sites in North-West Europe : +900 STE systems (after 2028, 20 new sites per year per country)



Thank you
