

# Internship Thermal Energy Storage

Thermomechanical analysis and optimization of a thermal energy storage for a CSP plant

Are you ready to be part of a startup that is driving the future of sustainable energy? Suncom Energy is seeking a result-oriented Solar Thermal Energy Intern to join our mission to decarbonize the world's energy supply. If you are passionate about solar energy, possess an entrepreneurial spirit, and thrive in a collaborative environment, this position is tailor-made for you! Join us in Houten, where we are developing small scale Concentrated Solar Power (CSP) solutions to provide 24/7 renewable heat.

## *About the company*

Concentrated Solar Power (CSP) uses parabolic reflectors to concentrate sunlight onto heat receivers. A transfer fluid at over 300°C carries the heat, which is then used directly or for electricity generation. CSP is increasingly competitive with fossil fuels, especially when paired with cost-effective Thermal Energy Storage (TES).

Suncom Energy specializes in small-scale CSP plants and is currently developing its new TES design, ready for commercialization and integration into their CSP-plants by the end of 2025.

## *Internship summary*

We are looking for an entrepreneurial and enthusiastic MSc engineering student who has interests in modelling, experimental work, combined with a strong conceptual understanding of thermal flow and material behaviour.

In this project you are expected to:

- Define a thermomechanical modelling strategy for Suncom's latest TES design to quantify stresses and locate positions of risk over thermal cycling
- Suggest potential design improvements based on your findings
- Conduct a parametric study to determine the optimal storage configuration
- If time allows it: Conduct validation experiments to verify your modelling results

## *Goals*

- Validated quantification of the main design challenges for Suncom's latest energy storage design, filling the current gap in research.
- Conceptual improvement of the storage design.

### *What We Offer*

- Experience to work in a mission-driven start-up and help tackle climate change
- A flexible and vibrant work environment with a lot of responsibility and ownership
- A well reachable office location (Houten Castellum)
- An internship compensation of €500,- per month
- A possibility to join the company after successful completion of your internship, with the opportunity to become co-owner of the company

Interested? Contact our recruitment team at:

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