




SO-PRO



Intelligent Energy  Europe

Ministerium für Wirtschaft,
Mittelstand und Energie
des Landes Nordrhein-Westfalen



SO-PRO - Solar Process Heat

Title:	“Economic Concepts for Solar Thermal Systems”
Date & Location:	June 8th 2010, “ZukunftsZentrumZollverein” in Essen
Organizer:	GERTEC Ingenieurgesellschaft
Participants:	29 participants (including 4 speakers)

Summary

The workshop in the SO-PRO project, was recognized with the same great interest like the first workshop in March 2010. Representatives of all market participants who are interested in this still little-spread application have attended the workshop:

- potential users
- manufacturers
- installers & planers
- energy suppliers & contractors
- industrial organisations & local authorities.

Because of the heterogeneous composition, an active exchange between the participants of the workshop emerged and a wide variety of aspects to the issue of economic efficiency of solar process heat systems have been taken up. A basic topic of the day was the joint elaboration and discussion of the possibilities and limitations of a solar-contracting-model.

In order to give an introduction to the special themes of discussion, short presentations on various economic issues were held:

„Economic Aspects of a Solar Process Heat Installation“

Dipl.-Wirtsch.-Ing. (FH) Klaus-M. Kottsieper, GERTEC Ingenieurgesellschaft, Essen

„New Financing Models for Solar Process Heat Installations“

Dipl.-Ing. Rüdiger Brechler, EnergieAgentur.NRW, Wuppertal

„Contracting and Solar Process Heat - Examples and Experiences“

Dipl.-Ing. Friedrich Lamsfuß, Cofely Deutschland GmbH, Cologne

„Public Support of Solar Process Heat Installations“

Dipl.-Ing. Rüdiger Brechler, EnergieAgentur.NRW, Wuppertal

Objectives and Main Topics of the Event Programme

The objective of the event was to highlight the business conditions of the solar heat supply in the industrial context. The different expectations and assumptions of the market participants in the economic efficiency of solar thermal systems were main content of the presentations and discussions. The introductory speeches and ensuing discussions were based on the following contents:

- Technical, economic and organizational conditions.
- Benchmarks for efficient handling (What is economical?).
- Barriers to an economic handling.
- Alternative forms of financing, such as e.g. solar-contracting or fund-models.
- Definition and similarities between energy-supply-contracting and solar-contracting.
- The implementation of solar thermal systems within a contracting-model.
- Influence of a solar thermal installation to a contracting agreement.
- Public subsidies for solar thermal installations.
- Terms and conditions for the successful implementation of a solar-contracting.

Conclusions and Findings

By the discussion with the workshop participants it became evident that sometimes very different standards are set on the economic efficiency of a solar thermal system. Basis of an evaluation is always the cost comparison with a (mostly existing) conventional treatment on the basis of gas, oil or electricity.

A central evaluation parameter mentioned by most participants was the ROI (Return on Investment). The target size for an efficient operation, however, varies between 5 to 10 years. The consideration of rising energy prices (and their rate of increase) was discussed extensively among the participants.

For decoupling the question of the ROI of a solar system from the expectations of the (mostly manufacturing) company, solar-contracting seems to be a possible model. For this, however, the company's general willingness for a contracting is required. As part of an energy-supply-contracting, with a contract duration of 10-15 years, solar-contracting can be a way to overcome the economic barriers. Within the current market conditions (low gas and oil prices) a solar thermal installation, under a contracting-model, leads to a more expensive heat supply. In contrast a key benefit was seen in the increased price stability.

Within the current market situation a promotion of solar thermal installations by low-interest loans and direct subsidies seems to be indispensable to fulfill at both the profit expectations of entrepreneurs and the contractors needs. Despite interim adjustment of the MAP - „Marktanreizprogramm“ (Market Incentive Program) of the German Federal Government enough funding consists available with the programs of the KfW and the federal state NRW to conduct large solar systems for users and operators at the threshold of profitability.

For the next workshop, which will likely take place in November 2010, the following topics were suggested by the participants:

- Consideration of the CO₂-Emissions-Trading-System and other environmental benefits (E.g.: Carbon Footprint) in an economic evaluation
- Cost development and cost reduction potentials in the manufacture and installation
- Memory techniques (systems, applications, costs)
- Control Technology
- Exchange of experience with southern European partners

„SO-PRO - Solar Process Heat“ : Economic Concepts for Solar Thermal Systems

Date: June 8th 2010

Moderation: GERTEC Ingenieurgesellschaft, Essen

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Programme

8.45 a.m. Arrival of the participants

9.00 a.m. Welcoming the workshop participants
Presentation of the EU-Project's so far results
Heli Kasa - Gertec Ingenieurgesellschaft, Essen

9.15 a.m. Economic Aspects
Presentation of the economic framework conditions of a solar process heat installation
Klaus Kottsieper - Gertec Ingenieurgesellschaft, Essen
Discussion + Workshop

10.00 a.m. Coffee break

10.15 a.m. New Funding Models for Solar Process Heat Installations
Possibilities and limitations of alternative financing schemes
Rüdiger Brechler - EnergieAgentur NRW, Wuppertal
Discussion + Workshop

11.00 a.m. Contracting and Solar Process Heat
Examples and experiences from practice
Friedrich Lamsfuß, Cofely Deutschland GmbH, Cologne
Discussion + Workshop

11.45 a.m. Public Support of Solar Process Heat Installations
Current funding programs offered
Rüdiger Brechler - EnergieAgentur NRW, Wuppertal
Discussion

12.00 p.m. Final Discussion
Summary of the results, prospects for future project content, topic collection for the next workshop

12.45 p.m. End of the event during a joint lunch

Photos of the Event



ANNEX

Presentations of all speakers

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