



Business Tools

Procurement Goals and Performance Analysis

Goal Setting

The goals to be achieved by the procurement process are to be set up together with the buyer group. Goals could be defined within the following qualities of the solar heating system:

1. Procurement Goals

- Cost-performance (e.g. total installed cost/value of annual energy delivered present value)
- Life Cycle Analysis
- Simple Payback Time
- Energy payback time
- Environmental aspects

2. Reliability and durability:

- Corrosion protection
- Protection against high temperatures (stagnation)
- Water tightness
- Scalding protection
- Freeze protection
- Heat transfer fluid degradation protection

3. Energy production:

- Yearly energy production
- Fraction of solar
- Minimum heat losses
- Comfort

4. Installation:

- Ease of installation
- Need of space
- Integration with existing installation (hot water tanks prepared for solar heating)
- Roof integration

5. Costs:

- Component costs
- Installation
- Value of energy produced

6. Aesthetics:

- Collector design
- Tank design
- Further design

Goal Evaluation

It is to be specified to which evaluation methods the above qualities are to be measured. Suggestions could be:

Energy production:

- Collector efficiency testing according to CEN TC 312 prEN 12975 or similar standard
 - Storage and Controller testing according to CEN TC 312 prEN 12977 or similar standard
- and/or
- Complete system testing according to CEN 312 prEN 12976 for factory made systems
 - Overall yearly production and solar fraction etc. calculated by specific computer simulation program (e.g. TRNSYS)

Reliability and durability:

- Tested according to above or other standards
- Estimate of components life span

Installation:

- Estimate of man-hours for installation
- Evaluation of need for space, integration etc.

Costs:

- System price quotations (from suppliers)
- System installation quotations
- Calculation of ratio/total investment/net solar energy production

The aesthetics impression of as well the collectors as the whole installation shall be positive.

Evaluation of tenders

Evaluation of tenders could be carried out regarding the same qualities and evaluation methods as stated above.

Furthermore could the following be considered:

- Warranty on products/installation
- Labeling
- Experience and financial position of deliverer

The relative weights of each of the above should reflect the customer's purchase criteria.