**Case Studies**

**Case 9:**

"Zonnelease"

Nationwide, the Netherlands.

Leasing of large scale solar heating systems to institutions etc. The customers pay a fixed yearly lease for about 15 years - the lease could be equal to the customers' avoided energy cost. The project is extended to 20 pilot projects.

Advantage:

- Appeals to customers who do not want to take any risk.
- Advice and inspection of the systems are included.
- Good possibility for good economy in elderly homes because they have high and constant hot water consumption and pay high energy tariffs (in Holland).

**CASE STUDY 9**

**Solar Procurement Projects:**

**Solar Leasing Campaign**

**Title:** 'Zonnelease': Sun Leasing for Large Scale Solar Heaters.

**Location:** Nation-wide, the Netherlands.

**Pilot project:** Intramural care institute "De Hartekamp", Heemstede, the Netherlands.

**Time period:** Starting date: 1998. End date: ongoing.

**Short description of the project:**

‘Zonnelease’ is an initiative of 6 members of Enercom, a branch organisation of small energy distribution companies. Zonnelease plans to use the 'full service' concept of large solar water heaters for the intramural care sector and elderly homes and care centres. At the medium term, the sales capacity will be enlarged to the national scale and other market sectors will be approached.

The approach of solar leasing is characterize by: purchase, installation, maintenance and guarantee on the account of the Zonnelease members (operational lease) and energy saving and lease payment on
the side of the client. The system is financed by means of a sale-leaseback construction or financial leasing with a financier (bank). This construction allows for smart use of tax incentives for renewable energy projects in the Netherlands.

The first pilot project was executed for ‘de Hartekamp’, a intramural care institution consisting of the installation of a 504 m², centrally roof-placed, solar collector system and boiler. The installation was financed through means of the solar lease construction in which the energy utility EZK invested in the purchase of the system and the care institute pays a fixed lease amount each year. After 15 years the lease contract will end and the institute will become the system owner. It is expected that the solar system will supply 40% of the total need for hot tap water in the eight buildings of the complex.

<table>
<thead>
<tr>
<th>Participants:</th>
<th>Role:</th>
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<tbody>
<tr>
<td>Organisation</td>
<td>Form of action-taking</td>
</tr>
<tr>
<td>EZK, Intergas, Cogas, Energie Delfland, GZO, GCN</td>
<td>Member/initiator</td>
</tr>
<tr>
<td>Ecofys, CEA</td>
<td>Consultancy</td>
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<td>NOVEM</td>
<td>Co-finer</td>
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<table>
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<tr>
<th>Time schedule:</th>
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<tr>
<td>08/1998 Start of first pilot project to introduce leasing of solar hot water systems</td>
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<td>08/1998 to 09/1998 First courses for account managers</td>
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<tr>
<td>10/1998 to ongoing Customers Declaration of Intent</td>
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<tr>
<td>End of 1998 Initiation of 10-20 pilot projects</td>
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<td>Spring 1999 Foundation of lease organisation</td>
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It is expected that many of the other 11 members of Enercom will join this initiative in due time.

Technical product information:

Supply of: large scale pre-heaters for tap water systems, incl. financing, insurance, yield guarantee, maintenance and control.
Contract: standard contract or framework contract with financier/manufacturer.

Project goals

**General objectives:**

- To develop a product and strategy to introduce the lease construction in pilot projects and disseminate this at the national scale.
- To take advance of the existing tax schedules.
- To introduce large solar water heaters on a large scale without initial investment costs, making use of central purchase and coordination.

Design characteristics

Inspection/monitoring tests: the lease-contract will include advise and inspection of the installed systems and payments to be carried out after sales agreement. It is foreseen that the energetic performance of the solar system will be monitored and guaranteed. If the solar performance falls below expectation, financial compensation will be arranged.

Most prevailing problems: to be determined.

Financial characteristics

Price setting: For leasing of solar water heaters, the system will be financed by a sale-leaseback construction. The customer will pay a fixed yearly lease amount for the duration of the contract (15 years). The idea is that this lease amount will be equal to the avoided energy costs of the consumer.

Elderly homes are the first market for this project, because they have a high and constant hot water consumption and often pay high energy tariffs.

Sales promotion

The pilot phase of the lease construction was started with the opening of the system at 'De Hartekamp'. Extensive promotion will take place through brochures, presence at fairs, presentations and so on. Two courses based on a product handbook have been held for 12 account managers of the Zonnelease members. The account managers are now contacting prospects (often existing energy consumers) in order to gather about 20 pilot projects before the end of 1998.

Sales arguments are that Zonnelease helps to achieve energy savings agreements, while there are no investment costs and leasing costs are
not higher than normal energy costs. The lease amount is corrected for inflation, but not for future increases in the energy tariffs. This means that the consumer will benefit from expected future price increases (energy taxes). Risks and maintenance are taken care of by the energy distribution company.

After a first visit by the account manager to an elderly home, a global feasibility study will filter out unattractive cases. Interested customers can then sign a declaration of intention, which leads to an engineering study resulting in an offer for a lease contract. If this offer is refused, the customer pays for the costs for the engineering study. If the lease contract is signed, the system is installed and monitoring, maintenance and guarantee are started.

Ownership and responsibilities

Owner solar heating unit: the energy utility company, or decided upon on the basis of the contract form and financing construction. Included in the lease contract: maintenance, repairs, control and guarantee of performance of the solar system. Financiers of the units: banks or any other financial institution. Supply and installation guarantee: carried out by the energy distribution company.

Results

The first pilot project has been realised. A number of account managers are marketing the construction. About 20 pilots (contracts) are foreseen before the end of 1998.

Project experiences and conclusions

To be mentioned after the first findings of the pilot project have become available.

May 1999