

**International Energy Agency  
Solar Heating & Cooling Programme**

**Task 24  
Solar Procurement**

**WORKING GROUP/EXPERTS MEETING**

**Stockholm, Sweden  
6-7 April 1998**

**MINUTES OF MEETING**

**Hans Westling  
Promandat AB  
Operating Agent**

International Energy Agency  
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## **TASK 24 SOLAR PROCUREMENT**

**Minutes from Working Group/Experts Meeting, 6-7 April 1998, Stockholm, Sweden**

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Hans Westling  
20 April 1998

## **TASK 24 SOLAR PROCUREMENT**

### **MINUTES FROM WORKING GROUP/EXPERTS MEETING 6-7 APRIL 1998, STOCKHOLM, SWEDEN**

#### **1. INTRODUCTION AND PRESENTATION**

##### **1.1 Welcome**

Hans Westling welcomed the participants to the meeting, which was held at the IVA Conference Centre at the Royal Swedish Academy of Engineering Sciences in Stockholm. Hans Westling referred to the Executive Committee Meeting in Australia in November 1997, where the representatives agreed to start Task 24 on the 1st of February 1998 as four countries planned to participate in the Task (if the ballot procedure about the revised Annex Text had proceeded far enough) and with Hans Westling as Operating Agent.

##### **1.2 Presentation of persons present**

All the participants, who are listed below, gave a short presentation of their background. For further details as to organisations and address particulars, see the List of Participants, Appendix 1. This list was circulated and updated during the meeting.

Peter Allen	(6-7/4)	Olof Olsson	(part of 6/4)
Jan-Olof Dalenbäck	(7/4)	Michael Noble	(6-7/4)
Stefan Camitz	(part of 6/4)	Peter Out	(6-7/4)
Klaus Ellehauge	(6-7/4)	Robert M. Reedy	(6-7/4)
Torben Esbensen	(6-7/4)	Conny Rolén	(part of 6-7/4)
Maaïke Fernhout	(6-7/4)	Bengt Ridell	(6-7/4)
Per Folkesson	(part of 6/4)	Jens Windeleff	(6-7/4)
Lisbet Holst	(6-7/4)	Hans Westling	(6-7/4)

#### **2. DECISION ON AGENDA**

A Preliminary Agenda was circulated among the participants. It was suggested by Jens Windeleff to include among the items the plans for interaction between

Subtask A and Subtask B. It was also suggested to include a discussion about how to raise interest in further participation in the Task. With these clarifications the Preliminary Agenda (Appendix 2) was approved.

### **3. PURPOSE OF TASK 24 SOLAR PROCUREMENT**

#### **3.1 Presentation of documents**

The purpose of this meeting was to discuss some clarifications in the Annex Text suggested during the ballot procedure, and to plan the future work within the Task and Subtasks.

Revised Concept Paper and Draft Annex (both documents dated 26 January 1998) had been circulated for approval ballot among the Executive Committee representatives. Until 6 April no country had opposed the Task 24 Annex Text. Some clarifications had been suggested, which will be dealt with later during this meeting. A Draft Work Plan and a Draft Information Plan (both documents dated 28 January 1998) had been distributed to representatives of the countries that had expressed interest in participating in Task 24. To date, the majority of the countries had returned their approval ballot. Only a few countries had not yet answered.

The next Executive Committee Meeting will be in the United Kingdom at the end of May. Normally, material has to be distributed to the ExCo members three to four weeks before a meeting. This means that changes and clarifications have to be included in the texts now. The updated final Annex Text and updated Draft Work Plan and Draft Information Plan have to be distributed at the beginning of May.

At the end of January 1998, the brochure "Large Scale Solar Purchasing - A Business Opportunity" was distributed through Philip Mann and CADDET. The large Solar Procurement Report is under final production now. The final draft of the report had earlier been distributed to CADDET members and interested countries for their comments. According to plan, the report will be printed before the summer of 1998. Philip Mann has now left the CADDET and ETSU organisations and has been replaced by Ms. Hayley Myles, who has taken over his responsibilities.

Hans Westling informed, with the help of transparencies, about the overall objective of the Task and the objectives of the Subtasks, Appendix 3, and how these objectives are to be achieved by the participants. The Principle Schedule and draft Time Schedule were also presented. (Copies of schedules updated after the meeting are attached as Appendix 4:1-2.) The Task consists of external

activities through Subtask A “Procurement and Marketing” and internal activities through Subtask B “Creation of Tools”. According to plan, the procurement activities will consist of two rounds - the first round on a smaller scale as national procurements and only minor international coordination. After two years, there will be an evaluation in order to give the Executive Committee the possibility of deciding whether to continue the Task activities.

### **3.2 Additional contributions regarding the purpose**

Robert Reedy from Lakeland Utility in Florida was present at the meeting as an observer if the United States is to join the Task. He had received and studied the background documents. With reference to the presentation made by Hans Westling earlier during the meeting, Robert Reedy declared that this is exactly a description of the problems with thermal solar solutions and that Task 24 would give valuable contributions to better solutions. He also pointed at the need for better meters, which should be more reliable and cost less. The Lakeland Utility now has a specific programme. In some areas in Lakeland, the utility has entered into agreements with homeowners and installed collectors and systems. The homeowners only pay for the energy delivered. This means that it is important to have good-quality and low-cost meters. Robert Reedy also informed about the “Million Solar Roofs Program” launched by the President, which will include 500,000 thermal systems in seven years. This is mainly a publicity and information programme, but if the United States, through the Department of Energy, join Task 24 that would suit very well into this activity. Robert Reedy was also of the opinion that there might be other utilities and ESCOs in the United States that would be interested in this Task. He also referred to the different barriers that can be identified. Attempts are now made to come up with solutions to handle the different identified barriers.

The Canadian representatives stated that now, after the Kyoto conference, it is a good timing to have these activities. Canada now intends to take further concrete actions to reduce the CO<sub>2</sub> emissions. It was also agreed, both from The Netherlands and from Canada, that good metering equipment would be of interest. If such equipment could be in the magnitude of 150 USD it would be a good thing. Solar collectors could be looked upon as a sort of distributed generators.

The representatives of The Netherlands also informed that NOVEM had contributed to the development of a prototype. Discussions are in progress to use systems with leasing arrangements in homes for elderly people.

## **4. PARTICIPATION PLANS: COUNTRIES AND REPRESENTATIVES, NOMINATION OF SUBTASK LEADERS AND NATIONAL COORDINATORS**

Hans Westling presented a memo of what has to be included in a National Participation Plan. The format is one page, see checklist, [Appendix 5:1](#) and model letter, [Appendix 5:2](#).

The representatives of *The Netherlands* informed that, in accordance with their earlier statements, they are prepared to take on the Subtask A leading role, with Peter Out as Subtask Leader, assisted by Maaïke Fernhout. The funding had already been decided for the first year.

The representatives of *Denmark* confirmed that they are prepared to be the Subtask B Lead Country, with Klaus Ellehauge as Subtask Leader. Torben Esbensen will be the National Coordinator in Subtask A mainly. Decisions have been taken to fund five person-months for the first year.

Denmark intends to have a National Task 24 Group, which will hold separate coordinating meetings.

Information will be given later from *Canada* and *Sweden* concerning representatives, level of participation in Subtasks A and B, and National Coordinators.

Robert Reedy will report to the Department of Energy, and hopefully there will be a positive decision about *U.S.* participation.

The Working Group/Experts meeting decided:

- to accept the proposal from The Netherlands and Denmark about Subtask Leaders and include this information in the revised documents.

## **5. CLARIFICATIONS AND CHANGES IN THE ANNEX TEXT AND WORK PLAN**

### **5.1 Work Plan**

The table (Appendix 5 in the Work Plan) showing the distribution of the 10,000 systems included the need to identify 3,000-6,000 systems in other countries. It could be of interest to change this table by doubling the figures in the participating four countries, thereby showing that they can fulfil the 10,000 systems. If other countries join, there would be more systems. It would be of interest not to lower, but to keep the goal as a vision. If the United States joins the Task, it would not be a problem for the United States alone to fulfil the goal of 10,000 systems. It should also be stressed that this is in addition to other new efforts.

## 5.2 Annex Text

Some countries had suggested clarifications in the Annex Text.

### **United States**

The clarifications from the United States (Mary-Margaret Jenior) were discussed.

Section 5 Results, bullet 1: Hans Westling will see whether further clarifications are needed for the 10,000 systems.

Section 5 Results, bullet 3: It was decided to delete the phrase in accordance with Mary-Margaret Jenior's suggestion.

Section 5 Results, bullet 5: The suggested rewording was accepted.

It was also accepted to include the two other suggestions made by Mary-Margaret Jenior.

### **The Netherlands**

The suggestions from Lex Bosselaar to change two sentences (on page 2 and page 5) in accordance with his suggestions were approved.

### **Other clarifications**

Other clarifications were also decided, see further below.

The Working Group/Experts meeting decided:

- to accept the suggestions made by the United States and The Netherlands and to include them in the Draft Annex Text and Work Plan.
- to change the wording "Subtask 1" and "Subtask 2" to Subtask A and Subtask B in the Work Plan;
- to ask for further suggestions about formulations in the Work Plan and Information Plan to be sent to Hans Westling by 16 April 1998, at the latest;
- to ask the Subtask Leaders to send in suggestions about formulations of decisions to Hans Westling by 16 April 1998, at the latest.

Hans Westling intended to include these suggestions in the revised Work Plan

and Information Plan. These two Plans, the updated Annex Text and a Task Status Report will then be distributed to the Executive Committee representatives and to the Working Group members together with the Minutes of this meeting at the end of April/beginning of May.

## **6. TASK 24 ACTIVITIES: SUBTASKS A AND B**

There was a discussion how to facilitate the collaboration between the Subtask A Leader and the Subtask B Leader so as to get the best combination out of the work. It was also stressed that it is the needs and wishes of the buyers that is the most important thing. Some buyers are experienced in this area. Others have not been involved in thermal solar projects before, and they might need a variable degree of guidance and suggestions of how to formulate their needs. This will be important for the formulation of the overall criteria.

Many of the participants stressed that the performance and price proposals have to be accompanied by criteria for maintenance, service and quality, and also references to earlier track record. It could also be discussed if a special logo to be used for the set of requirements should be worked out. Facilitation of the dialogue with the buyers and between Subtask A and Subtask B was also stressed.

The Working Group/Experts meeting decided:

- to plan for a facilitation of the collaborative activities between Subtask A and Subtask B.

## **7. PRESENTATION OF PLANS FOR SOLAR PROJECTS IN STOCKHOLM**

Olof Olsson of Stockholm Energi (who partly replaced Per Folkesson) and Stefan Camitz of MFO /the Stockholm Materials Supply Organisation/ gave presentations about plans for energy-efficient, environmentally-adapted solutions in several areas. In Hammarby Sjöstad, a new city district which is being built close to Stockholm City, approx. 8,000 apartments will be built during a 10-year-period. SEK 200 million have been set aside by the City of Stockholm for development activities. Additional SEK 200 million had also been decided by the Swedish Government. There are plans for advanced projects, including heating and cooling and combinations of PV and thermal systems. The criteria are very severe, and a maximum of 60 kWh per square meter is allowed. The figure set up shall include both heating and all electricity. This means that there has to be a reduction by half of the use of energy.

Stefan Camitz, who had earlier been working at NUTEK and also with European Commission THERMIE programmes, informed that MFO had also invested in 440 electric vehicles. Large activities for technology procurement are now being planned. These activities included renewables and refurbished housing. Another activity was for ventilation and central cooling. The starting point will be identified at a meeting before the summer this year (3 June) as a brokering event. SEK 75 million have been set aside for the use of technology procurement only.

## 8. SUBTASK A: PROCUREMENT AND MARKETING

Subtask A activities include:

- Work with identification of buyers
- Creation of buyer groups
- Information and promotion activities
- Planning of national information and promotion activities.

Just before the meeting, Peter Out circulated a document with some questions regarding buyer groups to be answered by the participating countries. The answers from The Netherlands and Denmark were presented at the meeting, see [Appendices 6 and 7](#). The other countries had not had the opportunity to work out such a material. Jan-Olof Dalenbäck was preparing a document for Sweden.

Torben Esbensen, *Denmark*, informed about the activity within the private sector, including housing companies, utilities, work with property developers and work with the creation of buyer groups.

For *The Netherlands*, the plans also included utilities, municipalities, leasing companies and central organisations for housing cooperatives.

Jan-Olof Dalenbäck informed that *Sweden* will participate and try to organise both housing companies and utilities. Heimo Zinko, who was not present at the meeting, had already had several contacts, e.g. with Stockholm Energi. HSB, the large Swedish organisation for cooperatives, is also interested.

For *Canada* this is a preparatory work, but much work is being done through the homebuilders associations. Michael Noble presented his report "Purchasing Motives for Utilities and Housing Companies", [Appendix 8](#). This report will be included in the upcoming full background report.

## 9. INFORMATION ACTIVITIES

The purpose of Task 24 information activities is both to raise the interest among buyers to join national and international programmes, and to get more countries interested in joining the Task. Some actions were discussed and decided.

Hans Westling will investigate the possibilities of having a web site connected to the web sites of the International Energy Agency and the Solar Heating and Cooling Agreement. Information would then include:

- Purpose
- What is expected from the participants
- What the participants will get out of their involvement
- How the participants can contribute.

The “value added” achieved by participation (apart from the energy reduction) has to be emphasised.

The Subtask A Leader will produce a brochure, and a sort of “model letter”.

Other information items include the production of 5-10 transparencies for overhead presentation and a logo. Hans Westling will prepare a standard presentation of Task 24 (5-10 transparencies).

It was decided to inform about Task 24 at different activities. It was furthermore decided that the Operating Agent Hans Westling would try to participate in the “EuroSun” conference, which will be held on 14-19 September 1998 in Slovenia. A short abstract will be sent to Torben Esbensen as soon as possible. (*Addendum*: An abstract was sent later in April.)

There are also other identified activities, such as the “Soltech” in Orlando in April, which will be visited by Robert Reedy, and a meeting in Albuquerque.

A list of the different planned fairs and conferences in the solar field would be worked out through Ecofys.

The participants agreed that there may be a need for special funding of the information activities. The “home page” and the updating of the Information Plan will involve further costs. It was decided that the first small brochure can be financed through small contributions from the participating countries. But for the future additional funding is needed.

Hans Westling will also contact CADDET to see whether further financing possibilities could be identified. Financing could perhaps also be available

through the European Union ALTENER Programme or other resources.

It was also decided that we should try to seek funding for a special information activity. This is something that could be done through Denmark as an experienced European Union country.

The possibilities of using e-mail for communication in Task 24 should be used as much as convenient.

The Working Group/Experts meeting decided:

- to investigate the possibilities of a Task 24 web site;
- to ask Hans Westling to work out a standard presentation of Task 24 (with 5-10 transparencies);
- to inform about Task 24 at different activities and conferences;
- to ask Hans Westling to try to take part in the EuroSun conference 14-19 September 1998 in Slovenia;
- to ask Ecofys to update a list of different planned fairs and conferences in the solar field;
- to try to seek additional funding for the information activities (apart from the first small brochure). Hans Westling will enquire if financing can be achieved through CADDET, the European Union ALTENER Programme and others.

## **10. SUBTASK B: CREATION OF TOOLS**

Klaus Ellehauge informed about his plans for the work. There should perhaps be a first draft of the "Book of Tools" somewhat earlier than indicated in the Time Schedule so that the book could be a help in the work on raising the buyers' interest. There will be a disposition of the "Book of Tools" and the first main criteria. A special meeting about the coordination of work in Subtask A and Subtask B will be held in June. Canada with Michael Noble will also participate. A document (1-2 pages) with examples of good projects should be drawn up.

Torben Esbensen stressed that we have to initiate the contacts with possible buyers already now with the experience we already have. At the same time we should invite the buyers to express their wishes and needs, and we should also

advise them. There may have to be two groups: one with experienced buyers and the other with new buyers. There may also have to be different strategies for these different types of buyers. It is important to show how we are going to contribute to the changing of the market. This is not about how to sell the systems. Hopefully, this will contribute to a paradigm shift.

The Subtask B Leader will prepare a first paper (5-6 pages) with the core criteria and the visions. What would you (as participant - buyer) get out? The collection of examples will also be started within three months.

Another point stressed was the aesthetics. Architects should be called in to try to make the collectors more acceptable, so that there would be a “value added” also in that respect. Integration with houses and product design should be discussed. Creative ideas concerning roof integration are most welcome. Klaus Ellehauge will look into this matter.

The problem with the installation time was also discussed. The installation should be done in a more efficient way.

## **11. TESTING**

The final draft of a European Testing Standard that will be distributed to the European countries will be sent also to Canada and the United States for comments. The principle should be to have a free trade and not create new trade barriers.

We should also look into Task 26 where there is a planned, special Subtask for combination systems.

## **12. CONTACTS WITH INDUSTRY AND MANUFACTURERS**

It was agreed that the National Coordinators will take up contacts, on a national level for the time being, with manufacturers and their organisations for informal meetings. Later, there may be a meeting with all the National Coordinators in order to plan the contacts with the manufacturers.

For next Task 24 meeting (which may be held in The Netherlands) plans should be made to include also the possibility for international buyers to meet. This would give the international dimension that we aim at.

The “PowerGen” conference in Germany should be investigated.

Hans Westling will also send more information about the meeting in London at the end of October to be included in the list of upcoming events. (*Addendum*: Information material about the "Green Building Challenge '98" conference in Vancouver 26-28 October, and the "DistribuTech DA/DSM Europe 98" conference in London 27-29 October was sent to Maiike Fernhout, Ecofys, later in April.)

The participants discussed how to create more interest in new countries. Hans Westling will send personal letters to the Executive Committee representatives and possible other contacts. The best way to approach them and stress the interest of participation should be thought out.

### **13. INFORMATION BY THE PARTICIPANTS**

The participants gave short presentations about the situation in their countries.

#### **United States**

Robert Reedy will send a presentation of the Lakeland Solar Thermal Business by e-mail to the participants, see [Appendix 9](#). The solar solutions should be seen as a generation alternative. The larger the volume, the lower the cost. He also referred to the profit margin the utilities usually have. They have to prepare the investments in decisions with detailed calculations of the return on investment. If the outcome is positive, it can be a question of several million units. They try to identify the different barriers and find ways to go round them, one by one.

Robert Reedy will report back to the Department of Energy about this Task and this meeting in a very positive way.

#### **Denmark**

In Denmark, work is also initiated through the Shell and BP organisations and through the gas and electricity companies. There are also combinations of PV and thermal systems. Leasing meter campaigns are also discussed. This activity could be seen as a "prestige" project, a "Solar Jacuzzi". Investing in solar installations has to compete with investing in better bathrooms or kitchens, for example. There is also a discussion about whether to expose the function of the solar by a meter in the kitchen.

#### **The Netherlands**

There is a clear interest in buying 1 square meter of PV installation. It would

cost about NLG 1,000 (USD 500). Many wealthy persons are prepared to invest that amount of money just for the image.

### **Sweden**

According to Sydkraft there may be a project in connection with a fair in Malmö about modern houses in 2001, when the bridge between Sweden and Denmark is ready.

### **Canada**

Centres for the trading of CO<sub>2</sub> emissions after the Kyoto meeting are now open. The price is USD 120 per tonne.

Michael Noble also informed about a visit to *China*. In China, they seem to have very cheap solar systems, and there are already about 300 manufacturers. The systems can be installed in individual apartments in multi-family houses, as there is individual hot-water heating in each apartment. The quality seems to be very good. You should however keep in mind that only 20 per cent of the households in China are connected to an electric grid.

## **14. PROJECT REPORT PROCEDURES**

A short list of actions was prepared at the meeting, [Appendix 10](#).

Hans Westling also informed about a Model for Project Report Summary. Before each Executive Committee Meeting, a Task Status report has to be drawn up by the Operating Agent. Therefore a summary from the Subtask Leaders and National Coordinators is needed. This summary should include scope, time, budget (cost and funding) and suggested decisions areas. Hans Westling showed the model used for Annex III of the IEA DSM Agreement, see [Appendix 11](#). The Task Status Report shall include major accomplishments and activities fulfilled during the last year (or six months), activities planned for the next twelve (or six) months.

## **15. ANNEX TEXT APPROVAL BALLOT**

*Addendum:* There are 19 organisations/countries in the Executive Committee. Up to 23 April, 15 countries have approved, which means that a clear majority is in favour of the Task 24 Annex Text.

## 16. SCHEDULE FOR FUTURE TASK 24 EXPERTS MEETINGS

The next Experts meeting will be held on *10-12 September 1998 in The Netherlands*. (The meeting will be in connection with the “EuroSun” Conference in Slovenia.)

(The autumn 1998 Executive Committee Meeting will be held on 10-12 November 1998 in Linz, Austria.)

The first 1999 Experts meeting will be for two-three days some time during the period *February 1-12, 1999, in Canada*.

### APPENDICES

- Appendix 1 List of Participants (updated 23 April 1998)
- Appendix 2 Preliminary Agenda (dated 5 April 1998)
- Appendix 3 “Objective of Task 24”, copies of transparencies shown by Hans Westling during the meeting.
- Appendix 4:1 “Time Schedule - Solar Procurement” (updated 23 April 1998)
- Appendix 4:2 “Principle Schedule - Solar Procurement” (updated 23 April 1998)
- Appendix 5:1 “National Participation Plan”, checklist. Hans Westling.
- Appendix 5:2 “Example of National Participation Letter” (from Handbook of Policies and Procedures, IEA Solar Heating and Cooling Programme, January 1998)
- Appendix 6 Document regarding buyer groups in The Netherlands. Peter Out, Ecofys, 06/04 1998.
- Appendix 7 Document regarding buyer groups in Denmark. Torben Esbensen, Esbensen Consultants, 03.04.1998.
- Appendix 8 “Purchasing Motives for Utilities and Housing Companies”, Report 2, IEA Solar Product Procurement Task, January 22, 1998, EnerWorks, Canada.
- Appendix 9 “Renewables Are Good Business”, presentation of the Lakeland Solar Thermal Business, Bob Reedy, Lakeland Electric & Water Utilities.

Appendix 10 “Planning and Actions”, checklist drawn up at the meeting by Peter Out.

Appendix 11 “Model for Project Report Summary” (from IEA DSM Annex III), Hans Westling.

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Attached separately: “Solar Update”, Newsletter of the International Energy Agency Solar Heating and Cooling Programme. No. 30 February 1998.

## **DISTRIBUTION**

These Minutes are distributed to the participants of the meeting and to specialists and representatives in interested countries.