

Solar Combi+ - 6th project meeting

Gleisdorf 17th-18th December 2009

Minutes

17th December 2009 - Solar Combi+

Participants:

Joerg Rupp	Sortech
Roberto Fedrizzi	Eurac
Daniel Mugnier	Tecsol
Romain Sire	Tecsol
Alexander Thuer	AEE-Intec
Martin Vukits	AEE-Intec
Bjoern Nienborg	ISE
Olof Hallstrom	Climatewell
Myrto Theofilidi	CRES
Ruth Fernandez	Ikerlan
J.M. Chavarri	Fagor
Alberto Picinardi	University of Bergamo

Location: Brauner Hirsch Hotel - Gleisdorf

Chairs: Roberto Fedrizzi (EURAC)



Salutation and Presentation of the Agenda for first day - R. Fedrizzi EURAC

("1_Gleisdorf_Agenda.pdf")

Roberto Fedrizzi, as project coordinator, welcomed the participants and presented the agenda and the list of presentations to be given.

WP2 - Market analysis - M. Thefilidi CRES

("2_Gleisdorf_WP2.pdf")

M. Theofilidi showed and commented the final results of the updated D2.4 (SWOT analysis).

- Strengths:
 - Compatibility with conventional heating/cooling & existing distribution systems
 - Stand alone systems for covering base cooling loads
 - Almost independent of energy markets
 - o 3-in-1 features: One product solves 3 needs for the user
- Weaknesses:
 - An auxiliary system required
 - High capital cost
 - Lack of local retailers
- Opportunities:
 - Future building integration
 - Prospects for financial incentives
 - "Pioneers" and "front runners" both in green technology and environment protection are looking to invest and buy new technology
 - Recast of the EPBD
- Threats:
 - Already installed conventional systems in existing buildings (non-worthy replacement)
 - End user's behaviour relates with system's performance



From Industrial partners' side, weaknesses mainly felt are:

- High capital cost
- Lack of knowledge still at this time about predefined solutions

They agree on the fact that the SWOT analysis helped them to clarify and summarize concerns that were unclear in an earlier phase of the project.

Discussion: The technology needs some big investors to get developed. But big investments don't happen because the market isn't safe currently. Improvement of market passes through: optimization of design/installation process so the systems have to work properly as soon as it is installed.

WP4 Task3 - Most promising applications - R. Fedrizzi EURAC

("3_Gleisdorf_MostPromisingMarkets.pdf")

Roberto Fedrizzi showed final results of the individuation of the most promising markets and application. GIS maps to define suitable areas for solar heating and cooling use were shown:

- Solar thermal collectors market in Europe
- Heating degree days
- Cooling degree days
- Useful radiation at 40°C outlet water temperature with FP and ET collectors
- Useful radiation at 60°C outlet water temperature with FP and ET collectors
- Useful radiation at 70°C outlet water temperature with FP and ET collectors during summer
- Useful radiation at 90°C outlet water temperature with FP and ET collectors during summer

The maps were finally approved, with the following suggestions:

- Clarify the reference area used to compute useful radiation
- Clarify the meaning of loss factors k₀ and k₁ and clearly document them directly at the graphs showing the usefull radiation
- Eventually take into consideration second order terms in the computation of the losses
- Add maps for electricity prices and mix per country



The computation of a yearly solar yield based on realistic demand profile was also suggested. It however would be difficult and inaccurate on the base of the simplified models used. It was decided not to implement it but to refer to the results of the simulations in WP3 where solar gain is presented as results.

WP4 Task1 - Standard configurations - R. Fedrizzi EURAC

("4_Gleisdorf_StandardConfigurations.pdf")

Roberto Fedrizzi showed and commented the results of the standard configurations analysis. The report was retained enough clear and synthetic to be presented to the public. The following modifications have to be introduced:

- Clearer captions of the figures in Annex I
- In the paragraph relating to the simulations without backup boiler, the cooling solar fraction has to be named "solar coverage of cooling load" since no comparison with fossil coverage is obviously possible
- Clarify in introduction and conclusions that the simulations were made on the basis of a simplified model, therefore they are a rough estimation of the reality, meant to give a view of the facts and sizes. The standard configurations are selected from a purely technical point of view: to better understand what the manufacturers do in reality one should look at the package solutions.

WP4 Task4 - Online tool - R. Fedrizzi EURAC

Roberto Fedrizzi showed the online tool uploaded on the website. No comments were raised since the long discussion on the implementation already run during the last months.

Only a final review of the DB shown will be performed and eventual odd results will be erased.

WP4 - Review of the remaining tasks - R. Fedrizzi EURAC

("5_Gleisdorf_WP4Remaining.pdf")



A review of the task still remaining open was made:

- D4.3 Description of package solution(s) CW (Translation in Spanish)
- D4.4 Description of package solution(s) SorTech (Translation in German)
- D4.5 Description of package solution(s) SOLution (Final version + Translation in German)
- D4.6 Description of package solution(s) SK (Final version. No translation foreseen, since they are out of the project)
- D4.7 Description and visual representation (e.g. maps) of most promising regions for different applications (Translations in project languages)
- D4.9 Key data and "libraries" for calculation codes (EPBD) (Austrian SOLAR COOLING ROADMAP and French MEGAPICS projects will be provided with data from SC+).
- D4.10 Technical specifications and descriptions of technologies that are available will be provided to the project SMART-SPP.

French solar heating and cooling incentive program - D. Mugnier Tecsol

At the end of the meeting session, Daniel Mugnier presented the French solar heating and cooling incentive program. It will be used as a success story during the phase of contact with the authorities.



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Sortech Eurac Tecsol Tecsol AEE-Intec ISE Climatewell CRES Ikerlan Fagor University of Bergamo

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WP5 - State and final work - D. Mugnier Tecsol

("6_Gleisdorf_WP5.pdf")

Daniel Mugnier reviewed the material already prepared for the training courses. Mainly, Ikerlan/Fagor completed the training courses sessions. Climatewell and Sortech have performed one each and the remaining two courses have planned for January and February. Solutions dates have still to be planned; due to the fact that the responsible employee for the SC+ project at SOLution left the company the preparation of the courses are delayed; negotiations/discussions will be done to be able to fulfil the project goals with the following proposal: one course will be held by SOLution, one in collaboration with Sortech and one by AEE-Intec in cooperation with SOLution.

The dates have to be announced on the website. Therefore the partners have to send them to EURAC in advance.

Training slides shown in the courses have to be sent to be uploaded in the private part section of the website and on the webday.

It is important the final evaluation questionnaire be filled in by each training course attendee, to have a correct feedback.

The training material will be completed by Daniel Mugnier by the end of January.

WP6 - State and final work - A. Thuer

("7_Gleisdorf_WP6.pdf")

Alexander Thuer reminded all partners what was foreseen in according to Annex I of the project (see "SCSplus_WP6_events & deliverables.xls":

1. Newsletter D6.2:

Responsible: AEE-INTEC + EURAC

The second newsletter on most promising markets and swot analysis will be completed by AEE until Jan 15th and sent out by the end of January by EURAC. The third, relating to Standard configurations, Package Solution and Online tool will be sent by the end of February (Prepared by EURAC based on EURAC OTTI-Palermo paper/poster A12). Training Courses will be advised.

3. Brochure on Package solutions D6.3:



The content of the two last prepared deliverables (standard solution based on D4.1 and D4.7; no detailed package description but reference to the deliverables) will be also reported, in an extended way, in the project brochure. Further information on the online tool, how to use, what is the content and one page description from each industry partner will be incorporated. Since this has to be translated and printed by the end of February, the final version in English will be delivered by the end of January. (Draft of general content prepared by AEE shall be ready by Jan 11th; industry partners send one page until Jan 20th; AEE shall finish the document until end of Jan)

- Publication in professionals magazines D6.4: Responsible: Institutional partners About 10 publications are in the printing phase or already published. Around 5 are still foreseen by the end of the action on local and international online magazines.
- 5. Leaflets and Posters D6.5:

Responsible: All

Eurac will deliver the posters No 3 and 4 based on OTTI-Palermo paper/poster A12 and D4.1 and D4.7 by the second week of January and AEE will transfer them to leaflets.

6. Promotion in fairs D6.6:

Responsible: Industrial partners

A lot of promotion in fairs was performed by the industrial partners, mainly by Climatewell and Sortech. The deliverable is completed. AEE will collect the needed data (programme of fair, photos of stand if available) and prepare a short summary report;

7. <u>Conference presentations D6.7:</u>

Responsible: Institutional partners

More than 15 presentations to conferences were made. The deliverable is completed. AEE will collect the needed data (presentations, papers, programme of event) and prepare a short summary report; All authors shall clearly indicate if the paper may be published on the project Webpage as a pdf-file or not;

 Presentations to professionals D6.8: Responsible: Institutional partners
presentations, covering all countries are expected, national Workshops etc. should be used. 17 were performed. Around 3 are still foreseen by the



end of the action. AEE will collect the needed data (presentations, programme of event, photos if available) and prepare a short summary report;

9. <u>Authority Guide D6.9:</u>

Responsible: AEE-INTEC + Institutional partners

AEE-INTEC and Tecsol will work together to make a synergy of their experience, bringing in good practices and success stories based on successful implementation of the French incentive programme and the Austrian solar thermal roadmap; AEE will prepare a common guideline for the negotiation with authorities. Each partner will be responsible for contacting and meeting the authorities in its country within Task 6 / D6.10. Alternative approaches, as e.g. the organisation of round tables can be chosen by single partners.

10. Information to 15 bodies D6.10:

Responsible: Institutional partners

Information towards public bodies was continuously performed by the industrial partners. Further activity is foreseen by the institutional partners at local and national level.

11. Recommendations to EPBD D6.11:

Responsible: AEE_INTEC

AEE-INTEC and Tecsol will work together. It will be checked if department for buildings at EURAC can give useful input/support; Recommendations on SCS+ systems to be included within EPBD will be produced.

12. Feasibility Studies D6.12:

Responsible: Institutional + Industrial partners

10 out of 18 are done in AUT (3), ES (3), SWE/ES (3), GR (1), pending are GR (2; both are under preparation by CRES), ITA (3; ClimateWell/SorTech will do), GER (3; SorTech will do) and F (3; TECSOL will do in cooperation with industry partner); More than 3 feasibility studies have been performed by the industrial partners. They will send the best examples to be published. AEE will collect them and prepare a short summary report.

13. Press releases D6.13:

Responsible: AEE_INTEC + local partner

10 press releases were delivered by industry (ClimateWell) and 2 by institutional partners (EURAC). SOLution had a 2min50s TV-Spot on SolarCooling in the Austrian Television on April 23rd, 2009: (http://www.sol-ution.com/fileadmin/Downloads/Videos/eco_230709_SOl_.wmv). AEE-Intec



will circulate an English version of press release on SC+ to be translated and transmitted to local and national newspapers.

EURAC will prepare folders on the webdav for uploading the dissemination material of the partners

<u>Steering Committee meeting - R. Fedrizzi EURAC</u>

("8_Gleisdorf_SteeringCommittee.pdf")

Roberto Fedrizzi reviewed the work done during the meeting and the tasks to be accomplished in the next months.

Described the external evaluation process. The tender was sent to the following institutions/Companies:

Target	DE
SPF	CH
Aiguasol	ES
Solem Consulting	DE
TTZ Bremerhaven	DE
University of Tarragona	ES
INES	FR

The budget shift discussed in the last months to recover additional work in management, simulation and training organization was discussed and approved.

The distributed forms (CPF and shift form) with original signature MUST be received by EURAC on January 21st (=incoming at EURAC!!!!) LATEST.

The meeting was concluded at 15.30 and the participants visited two solar cooling installations from AEE-Intec in Gleisdorf.