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6<sup>th</sup> expert meeting

# IEA SHC Task 53

### New Generation Solar Cooling & Heating Systems (PV or solar thermally driven systems)

Aula de Graus Antoni M. Alcover – University of Balearic Island's (UIB), Palma de Majorca (Spain)

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# **Meeting Agenda – Final Version**

Monday October 10<sup>th</sup>, 2016, 2:00pm – 18:00 pm Tuesday, October 11<sup>th</sup>, 2016, 9:00am – 17:00 pm

### Task 53 website : http://task53.iea-shc.org/

#### Participation fee:

Registration fee is determined based on different activities (including dinner, lunch, and Coffee break, et al).

The amount is 100 EURO (VAT is not applicable) and registration process is managed by ABTECYR

Send request to **info@abtecir.org** : indicating name, surname and ID or VAT further copy of receipt of the corresponding payment. Cost per attendee to be transferred before October 1, 2016 to account ABTECIR **ES4421000967410200138317** (indicating full name Task 53+). After receiving the email and bank transfer sent to each registered ABTECIR confirmation.

#### Magdalena Ballesteros. Executive Secretary ABTECIR.

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### Day 1 - Agenda for Monday October 10<sup>th</sup>, 2016 (2:00pm-18:00pm)

| 1st block : Plenary |  |                                 |               |
|---------------------|--|---------------------------------|---------------|
| 14.00 – 14.15       | Welcome and Organisational issues  | Daniel Mugnier<br>Pedro Vicente | tecsol<br>UMH |
| 14.15 - 14.30       | Welcome, Introduction,<br>Structure of the meeting<br>Presentation of new participants/attendees | Daniel Mugnier                  | TECSOL        |
| 14.30 - 15:00       | Subtask A : Goals, structures, deliverables<br>Components, Systems & Quality                     | Tim Selke                       | AIT           |
| 15.00 - 15:30       | Subtask B : Goals, structures, deliverables<br>Control, Simulation & Design                      | Robert Fedrizzi                 | EURAC         |
| 15.30 - 15:45       | Subtask C : Goals, structures, deliverables<br>Testing and demonstration projects                | Richard Thygesen                | MDH Uni       |
| 15.45 - 16:00       | Subtask D : Goals, structures, deliverables<br>Dissemination & market deployment                 | Daniel Mugnier                  | TECSOL        |
| 16.00 - 16:30       | Coffee Break   |                                 |               |

| 2nd Block : Latest developments & results session |  |                |             |
|---|--|----------------|-------------|
| 16.30 - 16.40                                     | Latest results from French SAC projects    | Daniel Mugnier | TECSOL      |
| 16.40 - 16.55                                     | Latest developments in Sweden              | Chris Bales    | DU          |
| 16.55 - 17.10                                     | Building models recently developed         | Paul Byrne Ur  | niv. Rennes |
| 17.10 - 17.25                                     | Latest results from CoCoSol project        | Lukas Omlin    | SPF         |
| 17.25 - 17.35                                     | Update of COOLskin Project                 | Tim Selke      | AIT         |
| 17.35 - 17.45                                     | Main results of TheBat project simulations | Alexander Thür | UIBK        |
| 17.45 - 18.00                                     | Latest results on PV cooling storage model | Pedro Quiles   | UMH         |

### End of the working Day 1

Dinner: Dinner at Restaurant Varadero - Palma (http://varaderomallorca.com/) -ANNEX 4



### Day 2 - Agenda for Tuesday 11<sup>th</sup> of October 2016 (9:00am-17:00am)

#### 3<sup>nd</sup> Block : Specific Forum on the PUSCH Australian initiative :

09:00 - 11:00 Presentation and discussion about the Australian initiative PUSCH (Promoting the Use of Solar Cooling and Heating). More details on ANNEX3 to develop a road mapping exercise on solar cooling Subbu Sethuvenkatraman CSIRO

#### 11:00- 11:30 Coffee Break + Photo

#### 4<sup>th</sup> Block : Working groups session 1 :

| 11:30 -11:45 |   | Daniel Mugnier | TECSOL |
|--------------|---|----------------|--------|
|              | Package level (5-6 people max per item) |                |        |
|              |   |                |        |

11:45 – 13:30 Meeting in parallel on Working groups level.

#### 13:30- 14:30 Lunch Break at UIB

#### 5<sup>th</sup> Block : Working groups session 2 :

| 14:30 - 14:45 | Organization of Group discussions on Work<br>Package level (5-6 people max per item) | Daniel Mugnier | TECSOL |
|---------------|--|----------------|--------|
|               |  |                |        |

14:45 - 16:00 Meeting in parallel on Working groups level; Suggested topics:

#### 6th Block : Plenary & overall Subtask A : Report on working group items, 16.00 - 16.15 Tim Selke AIT planning of next steps; distribution of work. 16.15 - 16.30 Subtask B : Report on working group items, Roberto Fedrizzi FURAC planning of next steps; distribution of work. 16.30 - 16.45 Subtask C : Report on working group items, **Richard Thygesen** MDH planning of next steps; distribution of work. 16.45 - 17.00 Subtask D : Report on working group items, **Daniel Mugnier** TECSOL planning of next steps; distribution of work.

END OF THE MEETING – Bus Transfer organised to the Welcome Reception of EUROSUN 2016 at CASTEL DE BELLVER ( Website : <u>http://castelldebellver.palma.cat/</u>)



# **Annex 1: Meeting Participant list**

| No. | Name                      | Institute                                | e-mail                              |
|-----|---------------------------|--|-------------------------------------|
| 1   | Daniel Mugnier            | TECSOL                                   | daniel_mugnier@yahoo.com            |
| 2   | Tim Selke                 | AIT                                      | Tim.Selke@ait.ac.at                 |
| 3   | Roberto Fedrizzi          | EURAC                                    | roberto.fedrizzi@eurac.edu          |
| 4   | Pedro Vicente             | UMH                                      | pedro.vicente@umh.es                |
| 5   | Andreu Moià               | UIB                                      | Andreu.moia@uib.es                  |
| 6   | Richard Thygesen          | MDH                                      | richard.thygesen@mdh.se             |
| 7   | Stephen White             | CSIRO                                    | Stephen.d.white@csiro.              |
| 8   | Chris Bales               | DU                                       | cba@du.se                           |
| 9   | Paul Byrne                | Univ. Rennes                             | paul.byrne@univ-rennes1.fr          |
| 10  | Alexander Thür            | UIBK                                     | Alexander.Thuer@uibk.ac.at          |
| 11  | Daniel Neyer              | UIBK                                     | Daniel.Neyer@uibk.ac.at             |
| 12  | Salvatore Vasta           | CNR ITAE                                 | salvatore.vasta@itae.cnr.it         |
| 13  | Henk De Beijer            | SOLABCOOL                                | henk.debeijer@solabcool.com         |
| 14  | Timo Korth                | University of Applied Sciences<br>Munich | timo.korth@hm.edu                   |
| 15  | Felix Loistl              | University of Applied Sciences<br>Munich | felix.loistl@hm.edu                 |
| 16  | Lukas Omlin               | SPF                                      | Lukas.Omlin@spf.ch                  |
| 17  | Jean Philippe<br>Bacher   | HEFR                                     | jean-philippe.bacher@hefr.ch        |
| 18  | Subbu<br>Sethuvenkatraman | CSIRO                                    | Subbu.Sethuvenkatraman@csi<br>ro.au |
| 19  | Mac Sheldon               | COOLGAIA                                 | marc.sheldon@coolgaia.net           |
| 20  | Asier Sanz                | TECNALIA                                 | asier.sanz@tecnalia.com             |
| 21  | Richard Schex             | ZAE Bayern                               | richard.Schex@zae-bayern.de         |



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### **Annex 2: LOGISTICS FOR TASK 53 MEETING**

#### Arrival to Palma de Majorca:

#### By Plane: ...

The international airport of Son Sant Joan, 8 km from the city of Palma is the main gateway to the island of Mallorca.

There is a regular bus line that connects Palma to the airport. The trip last 20 minutes and you can only pay cash ( $5 \in$ ).

#### **MORE INFORMATION**

Taxis are also available for approximately 20 € to Palma.

#### Location of the UIB campus



#### Aula de Graus Antoni M. Alcover (10) - University of Balearic Island's (UIB)

#### **Buses**

The no. 19 bus connects Palma to the UIB. During term time, on average there is a bus every 10 minutes. The fare is cheaper if you buy a special bus pass or a Tarjeta Ciudadana (Citizen's Card).

There are also inter-urban buses that run between the UIB and other municipalities in Mallorca.

#### Underground trains

The no. 1 underground line links the center of Palma to the campus. It leaves from Plaza de España and the last stop is the UIB, so you can't miss it. It takes 13 minutes to cover the whole route and there is a train every 15 minutes during the rush hour.



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### **Suggested hotels**

- Melia Palas Atenea (from 134.20€ per person/night),
- TRYP Palma Bellver Hotel (from 120€ per person/night)
- Hotel Isla Mallorca Hotel & Spa (98 €/person/ night)
- Amic Horizonte Hotel (from 58.82€ per person/night)



### Annex 3: Australian ARENA PUSCH project background

CSIRO in Australia has been awarded funds from ARENA for Promoting the Use of Solar Cooling and Heating (PUSCH) in Australian Buildings. This three year project (July 2016 to May 2019) is being executed along with partners AIRAH and Coolgaia. The project will consist of three work packages. A short summary of work packages is listed below.

Work package summary:

#### WP1. Industry roadmap

This work package will analyse the current status of the SHC industry in Australia from both market and technology perspectives. This work package will identify the potential barriers to future development and expansion of SHC technologies and provide an industry agreed pathway to achieve set targets. Activities in this work package will receive inputs from stakeholder and expert meetings and from participating in International Energy Agency (IEA) task force meetings.

#### WP2. Case studies

SHC technology deployments at three sites will be used as case studies to analyse and publicise the technical and economic performance of SHC systems. The cash studies will be published in short brochures and include interviews with host sites to identify key learnings and implementation experiences for each SHC technology. Performance monitoring of these systems will happen for at least two annual cycles. Operational and maintenance cost details of these deployments will be used in the cost benefit analysis. Learnings from the case studies will be further used in knowledge dissemination activities (WP3).

#### WP3. Knowledge dissemination

A predesign tool for sizing and down selection of components for at least three SHC technologies will be developed as a part of this activity. This tool is expected to guide engineers as well as building owners in identifying suitable location specific SHC technologies. The tool will be made available for free on the AIRAH website. Other knowledge sharing activities include, i) conducting annual seminars on SHC technologies suitable for engineers and architects (3X), ii) preparing and distributing a best practice guideline for three SHC technologies through AIRAH publication channels iii) participating in IEA task 53 meetings to enrich the supply of dissemination information with international experiences on SHC technologies.



### **Annex 4 : VARADERO Restaurant location and Menu proposal**

CONTACTO : Camí de l'escullera, s/n, 07012 PALMA, Tel: 971 726 428



## MENÚ MI

Montaditos de jamón sobre pan payés Rabas de calamar Tartar de atún Trifásico de croquetas

> Dorada a la espalda o Entrecot de cebón

...

...

Cilindro de chocolate blanco con macaron de crema

...

Cerveza, Refrescos, Agua Vino Blanco, Vino Tinto

