

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
1791 Tullie Circle, N.E./Atlanta, GA 30329
404-636-8400**

TC/TG/MTG/TRG MINUTES COVER SHEET

(Minutes of all Meetings are to be distributed to all persons listed below within 60 days following the meeting.)

TC/TG/TRG NO.: T.C. 6.7 DATE: January 24, 2012
 TC/TG/TRG TITLE: Solar Energy Utilization
 DATE OF MEETING: June 26, 2012 LOCATION: San Antonio, TX

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Gaylen Atkinson	9	Mark Hertel	11	John Dunlap (partial)
Andrew Chiasson	10	Christian Vachon	11	Alexander Zhivov (partial)
Charlie Cromer	9	Scott Wayland	11	
Wilfred Laman	9	Ali Rashid Al-Alili	CM	
Janice Means (Chair)	10	Pamela L Androff	CM	
Marija Todorovic	9	Robert J Aresty	CM	
Brijosh Darji	Guest	William P. Bahnfleth	CM	
Matthew Daugherty	Guest	Constantinos A Balaras (HC)	CM	
Chris Holford	Guest	Erv L Bales	CM	
Joshua Kading (acting Sec)	Guest	John R Brown	CM	
Panagiota Karava	Guest	Alan T Chalifoux	CM	
Chen-Xian Lin	Guest	Bradley D Collins	CM	
Jennifer Rees	Guest	J Kevin Cross	CM	
Thanos Tzempelikos	Guest	Robert A Davis,	CM	
		Reda Djebbar	CM	
		Brian P Dougherty	CM	
		Peter G Ellis	CM	
		Jonathan C Evans	CM	
		Robert E Foster	CM	
		David W Gerlach	CM	
		Joshua R Gillespie,	CM	
		D Y Goswami	CM	
		Cory L Hasiak,	CM	
		Richard B Hayter,	CM	
		Hugh I Henderson,	CM	
		Bion D Howard	CM	
		James C Huggins	CM	
		Pamela M Immekus	CM	
		Sanford A Klein	CM	
		Andrew I Lowenstein	CM	
		Alfred J Lutz,	CM	
		Fariborz S Mahjouri	CM	
		Jeff Mahoney	CM	
		Alfi Helmy Malek	CM	
		Andrew McNamara	CM	

		Timothy J Merrigan (VC)	CM	
		Lucio Mesquita	CM	
		Stanley A Mumma	CM	
		Khalid Nagidi	CM	
		Ram Narayanamurthy (PC)	CM	
		Joeseeph J O'Gallagher	CM	
		H Greg Peebles	CM	
		Buss Andrew Price	CM	
		Talal M. Rabiah	CM	
		T Agami Reddy	CM	
		William Aloys Schulte	CM	
		Harvey G Stenger	CM	
		Menelaos Stylianou	CM	
		Athar Syed	CM	
		Gregoris A Thoma	CM	
		Dean T Tompkins,	CM	
		Michael R Wassmer	CM	
		Bede W Wellford	CM	
		Dean Wiersma	CM	
		Maurice W Wildin,	CM	
		Byard D Wood	CM	
		Cenk Cy Yavuzturk	CM	
		Paul M Zeigler	CM	

DISTRIBUTION

<i>All Members of TC/TG/MTG/TRG plus the following:</i>	
TAC Section Head: John Dunlap	
TAC Chair: Charles H. Culp, III	
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	
Research Liaison	Stephen Hancock
Special Pubs Liaison	William Fleming
Standards Liaison	James Vallort
Manager Of Standards	Stephanie Reiniche
Manager Of Research & Technical Services	Mike Vaughn

*Starting month as a voting member is July of the year shown. CM = corresponding member.

FINAL MEETING MINUTES
ASHRAE TC 6.7 – SOLAR ENERGY UTILIZATION
Annual Meeting – June 26, 2012
San Antonio, TX USA

I. Call to Order/ Quorum/ Introductions

The Meeting called to order at 1:06 pm June 26, 2012 by chair. Roll call was taken and 6 of 9 voting members were present to provide a quorum. Introductions were made.

II. Agenda Review

No changes were made to the agenda.

III. Minutes.

The January 23, 2012 Chicago meetings minutes were reviewed and modifications were made. The changes are listed below.

Page 1: (1) Correct Svein Morner's name; (2) Add Panagioton Karava to the members present list

Page 4: Panagiota Karava indicated that she was not involved in an RFP and that the comment should be removed.

Wilfred Lamon moved to approve the meeting minutes with corrections; Charles Cromer seconded the motion. The motion passed 6-0-0-CNV.

IV. Chair's report – J. K. Means

A. The High Tower Award, given for "recognition of outstanding technical leadership and contributions to a TC/TG/TRG during the past Society year, excluding research and standards activities" has changed as follows:

- 1) TC chairs may now be nominated for the award.
- 2) TC chairs may not be nominated by the TC for which they are chair.

B. Six Multi-disciplinary Task Groups (MTG) have been formed.

C. Future Conference registration rates are changing as follows:

- 1) Speakers and Session Chairs- \$95
- 2) ASHRAE Student Members - \$25; Non-Member Students - \$55
- 3) It is not known at this time if monitors are going to be charged.

D. The focus for future presentations is shifting to research; the next programs have 25% allocated to research.

E. Chair reviewed upcoming conferences locations and dates:

- 1) Dallas – January 26-30, 2013
- 2) Denver – June 22-26, 2013

F. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is now branded as simply as "ASHRAE". Legally the title is still "The American Society of Heating, Refrigerating and Air-Conditioning Engineers" however, it the full title will no longer appear in the new logo. The rules for personal use of the ASHRAE logo on business cards follow.

- 1) For business cards, members can state affiliation with ASHRAE with logo and can list their company name with address, but not their company logo.
- 2) The back side of a member's business card may have the traditional company business card.

- G. TC members will soon receive a letter asking if they wish to have a thank you letter sent to their employer for their committee activities. Please respond directly back to ASHRAE.
- H. There is a new terminology Wiki that has been created.
- 1) The wiki is accessible as 'read only' at: <http://wiki.ashrae.org>
 - 2) Members may submit definitions to the wiki for review; however, they cannot change the content directly.

V. Subcommittee Chair Reports

A. Handbook (Costas Balaras via Janice Means)

- 1) 2012 HVAC Systems & Equipment HB was published including the revisions made in Chapter 37 – Solar Energy Equipment
- 2) 2015 Applications HB Chapter 35 – Solar Energy Use is coming up for review.
 - a. Reviews must be completed and voted to approve by June 2014.
 - b. Ideas are requested for the ONLINE PLUS HB.
 - i. Videos of a solar tour, solar testing, or other graphics
 - ii. Excel files with calculations on solar geometry, solar radiation on tilted plane etc.
- 3) The idea to create an MTG on solar terminology was proposed to include representatives from the following technical committees:
 - TC 1.6 - Terminology
 - TC 2.8 - Building Environmental Impacts and Sustainability
 - TC 4.1 - Load Calculation Data and Procedures
 - TC 4.2 - Climatic Information
 - TC 4.5 - Fenestration
 - TC 6.7 - Solar Energy Utilization
- 4) Didier Thevenard (from TC 4.2) attended the Handbook subcommittee meeting and indicated there are some overlaps and repetitions in the ASHRAE Handbooks which needs to be addressed by the TCs 4.2 and 6.7.
 - a. Four years ago, material on solar geometry similar to HVAC Applications Chapter 35-Solar Energy Use was added to the Fundamentals Chapter 14-Climatic Design Information.
 - b. The presentation on Clear Sky Model (CSM) is better presented and more up to date in Chapter 14 than in Chapter 35.

B. Research (Svein Morner via Janice Means)

- 1) RTAR regarding OG 300
 - a. The output rating system needs to be revised.
 - b. CSA Group (product tester and certifier) is evaluating solar systems as a whole.
 - c. SRCC (Solar Rating & Certification Corporation) should be contacted sometime during this research.
 - d. The cost of the project should be increased to \$60,000.
 - e. The objectives should be revised to be more descriptive and more explicit.
 - f. A motion was made by Charles Cromer to proceed with the RTAR seconded by Maria Todorovic 6-0-0 CNV Pass

- C. Standards (Svein Morner via Janice Means)
 - 1) IAPMO (International Association of Plumbing and Mechanical Officials) is proposing that five new standards be developed:
 - a. BSR/IAPMO S1002-201x, Design and installation of Combination Solar Water and Space Heating Systems
 - b. BSR/IAPMO S1003-201x, Design and installation of Solar Space Cooling
 - c. BSR/IAPMO S1002-201x, Design and installation of Commercial Solar Water Heating Systems
 - d. BSR/IAPMO S1002-201x, Design and installation of Heat Metering Subsystems
 - e. BSR/IAPMO S1002-201x, Heat Transfer for Solar Heating Systems
- D. Programs (Ram Narayanamurthy)
 - 1) To be conducted via email since Ram was unexpectedly not present at the meeting.
- E. Website (Svein Morner) – no report

VI. Liaison Reports from Society & Other Organizations

- A. ALI – H. Healy – T. McGinn - *None*
- B. TAC Section 6 – J. Dunlap
 - 1) Remote meetings are available to TCs
 - a. 30% of voting members may attend via call in.
 - b. In case of conflict of interest, the callers must be disconnected.
 - 2) There was a discussion of the problem of programs being assigned to a TC without the knowledge of the TC.
- C. Research Liaison – Steve Hancock - *None*
- D. Programs – L. Jackins- *None*
- E. Handbook Liaisons – *Applications* – F. Mills & *Systems & Equipment* – T. Lawrence- *None*
- F. Special Publications – J. Keen- *None*
- G. Other TC's- *See V-A -4 above*
- H. LEED Energy and Atmosphere TAG – B. Howard- *None*
- I. ASES – B. Collins- *None*
- J. Solar Decathlon – M. Wassmer- *None*

VII. Old Business

- A. Review of the “*Central Solar Hot Water Systems Design Guide*” is still ongoing. Alexander Zhivov urged the TC to review quickly for so that it could be published.
 - 1) The CD has already been published.
 - 2) TC members expressed that limiting the design guide to district restricted the use of the document.
 - 3) The TC expressed an interest to include ground storage to the document.
 - 4) It was indicated that large additions to the document was not preferable.
 - 5) A Dropbox location has been established for a review of the document.

VIII. New Business

- A. *None*

Meeting adjured at 2:32 without quorum.

Respectfully Submitted by Acting Secretary, Joshua Kading with edits by Chair, Janice Means

TC/TG/TRG Activity Feedback Form

Please provide feedback on your TC/TG/TRG activities and return this form to your Section Head by email or drop off a printed copy in the Section Head's mailbox folder outside the ASHRAE Headquarters Room by Tuesday night 9:00 pm.

TC# 6.7	Committee Name: Solar Energy Utilization
	Chair: Janice K. Means

Meeting was Held	(City) San Antonio	(Day) Tuesday	(Date) 06/26/12
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Membershi	Quorum was established?	Yes
	Number Present	Total Number on Committee
Voting Members (excluding	5	8
International Members	1	1
Corresponding Members	0	58
Visitors and Guests	10	

Handbook Responsibilities	Standards Responsibilities
Volume and Chapter (i.e. A17 Printing Plants)	Standards Number (i.e. SPC 178, Std 90.1, Gdl 2)
S37 Solar Energy Equipment	
A35 Solar Energy Use	

Program									
Total # of Poster		Total # of Forums		Total # of Technical		Total # of Transaction		Total # of Seminars	
Sponsored	Co-sponsored	Sponsored	Co-sponsored	Sponsored	Co-sponsored	Sponsored	Co-sponsored	Sponsored	Co-sponsored
0	0	0	0	0	0	0	0	0	0

Current Research Activities (active)	FAQs Responsibilities		
# of active RTARS	0	Total # of FAQ's	1
# of active Workstatements	0	Have FAQ's been updated on a 5 yr	No
# of active TRP's	0	TC	
# of active RP's	0	TC has a website? (y/n)	Y
Total # of active Projects	0	Website is up to date? (y/n)	Y
		Website is on the ASHRAE Server? (y/n)	Y
		Link to website from www.ashrae.org/technology/page/10	
		4 is functional? (y/n)	

Any requests of the Technical Activities Committee?

Please set up an on-line access for both the TC 6.7 main Committee Meeting as well as for the sub-committee meetings for all future meetings. It is increasingly more difficult to get members as well as sub-committee chairs to attend. Neither the Standards nor the Research sub-committee chairs were able to come to this meeting.