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**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/MTG/TRG No. 6.7 DATE Draft April 4, 2017; Revised/Approved June 27, 2017

TC/TG/MTG/TRG TITLE Solar Energy Utilization

DATE OF MEETING January 31, 2017 LOCATION Las Vegas, NV

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
Costas Balaras	2016 (Chair)	Vinay Ananthachar	2014	Cyrus Nasser (Stds Liason)
Tim Merrigan	2016	Reda Djebbar	2014	Tim Smith (Guest)
Marija Todovoric	HB Subcom Chair	Gaylen Atkinson	2014	Danielle Miska (Guest)
Khalid Nagidi	2014 (Program Subspm Chair)			Madison Schultz (Guest)
James Leidel	2014 (Research Subcom Chair)			Maslat Alanizi (Guest)
Janice Means	2014			F. Alsulaimon (Guest)
Cary Smith	2016			Esmall Mokheimer (Guest)
Svein Morner	WebMaster			Adam Chrisman (Guest)
Ongun Kazanci	2016 (PCM)			Corey Blackman (Guest)
Mike Case	2016 (PCM)			Stefan Gracik (Guest)
Mark Hertel	2013 (CM)			Costa Kapsis (2016 PCM))
Eleftherios Bourdakis	2016 (PCM)			Robert Edwards (Guest)

**DISTRIBUTION: All Members of TC/TG/MTG/TRG plus the following:**

TAC Section Head: Mark Hegberg	SH6@ashrae.net
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters (Research, Standards, ALI, etc.)	Mr Cyrus H Nasser (Standards) cyrus.nasser@ee.doe.gov Mr Harvey M Sachs (Research) <a href="mailto:hsachs@aceee.org">hsachs@aceee.org</a> Mrs M Maggie Moninski (CCTC) maggie.moninski@gmail.com Mr Lynn F Werman (2019 HVAC APPLICATIONS) <a href="mailto:lynnwerman@yahoo.com">lynnwerman@yahoo.com</a> Mr Nicolas Lemire (2020 HB Systems & Equipment) <a href="mailto:nlemire@pageaumorel.com">nlemire@pageaumorel.com</a>
Mike Vaughn, Manager Of Research & Technical Services	MORTS@ashrae.net

**MEETING MINUTES**  
**ASHRAE TC 6.7 – SOLAR ENERGY UTILIZATION**  
**Annual Meeting – January 31, 2017**  
Las Vegas, NV, USA

1. The meeting was called to order by Chair Costas Balaras at 1:02 pm, January 31, 2017 and introductions were made.
2. Chair referred to the ASHRAE Code of Ethics and Manual of Procedures listed by URL in the draft agenda that had been sent out before the meeting.
3. Review of the Agenda. There were no proposed changes. Chair requested that Mike Case serves as the Secretary and record action items during the meeting.
4. Quorum. A count was made of voting members. Four of nine voting members were present at the beginning (Balaras, Nagidi, Leidel, Means). A quorum was not established.
5. Approval of Minutes. Chair noted that the minutes of St Louis, June 28, 2016 had been distributed by electronic mail before the meeting.

Mr. Balaras called for a motion to approve the St Louis meeting minutes. Janice Means moved and Svein Morner seconded

- a. **MOTION 1:** that the minutes of the St Louis, June 28, 2016 TC 6.7 meeting be approved as presented.

Chair called for discussion with none forthcoming. Chair called for a vote.

**VOTE: Minutes were not approved 4-0-0-5-CV.**

- b. Orlando, January 25, 2016 Minutes - Status update. The Secretary requested that committee members with copies of notes from 2016 TC 7.6 Winter Meeting in Orlando send them to him and will prepare a draft for consideration by the next meeting.
6. Voting members Tim Merrigan and Cary Smith arriving, bringing number of voting members present to 6. A quorum was now present.
  7. Announcements:
    - a. Roster SY 2017-18 – Chair reviewed proposed changes to roster to take effect July 2017:
      - i. Khalid Nagidi – become Vice Chair
      - ii. Vinay Ananthachar and Reda Djebbar - change to Non-Quorum voting member.
      - iii. Mike Case - become Secretary and Chair of Standard Sub-Committee
      - iv. Jim Leidel – continue as Research subcommittee Chair
      - v. Costa Kapsis – become Program Subcommittee Chair

- vi. Marija Todorovic – continue as Handbook Subcommittee Chair (as soon as possible Ms Todorovic should learn to use the new Handbook online system; there is a new process training for the online review editorial process)
- vii. Svein Morner, continue as Webmaster

Mr Balaras noted that there is new TC Online roster under development; it has been successfully tested and will roll out next year.

- b. Chair indicated that ASHRAE Asst Mgr of Standards-Codes had requested the committees to notify them of any code interaction issues (e.g. areas within the Codes that cause difficulty for TC 6.7 to follow engineering design) in order to discuss further. If interested in finding out more about how model Codes are developed in the US, and how members can get involved can contact Connor Barbaree at [CBarbaree@ashrae.org](mailto:CBarbaree@ashrae.org)

Cary Smith indicated that the code on solar electric is problematic and needs attention. He asked for a copy of the TC 6.7 roster to consult with others on how to pursue addressing this issue.

**ACTION ITEM #1: Mr Balaras to send a copy of TC 6.7 roster to Mr Smith.** Not to be distributed beyond ASHRAE.

- c. Request for TC 6.7 website link to external resources. Mr Nagidi mentioned that he had gone online to look at the material and reported that the site does have commercial links. Some expressed concern on whether ASHRAE would allow. If TC 6.7 does wish to consider, there is a need to first establish a policy for future reference and consistency on how to handle this kind of requests.

**ACTION ITEM #2a: Mr Morner to look into ASHRAE policy. Check ASHRAE guidelines and check with other TCs.**

**ACTION ITEM #2b: Chair to respond to the current request about the initiated process.**

- d. Option for TC Subcommittee Meetings via Conference Calls and Web Meetings – Subcommittee chairs can take advantage of conference calls and web meetings to facilitate their work, keeping them open to all members and corresponding members (encourage engagement). There is a positive value of online meetings, at least once between Society meetings or more regularly at the Subcom Chair’s discretion. [More information](#)

**ACTION ITEM #3: Subcommittee Chairs are encouraged to take advantage and have at least one conference call or web meeting before Long Beach; announce/invite all VM and corresponding members.**

- e. Basecamp. This is a new service by the Electronic Communications Committee; Electronic Collaboration Tools – ECT Subcommittee, that is also available for TCs.

**ACTION ITEM #4: Mr Morner to investigate and set up Basecamp for TC6.7.**

Mr Balaras attended the TC Chair Breakfast and summarized the following:

- CEC: Program omissions - TC sponsorship was left out of the print version of the program; not sure of how it happened, but will make sure they will fix it next time. Programs in TC meetings can be requested; conference deadlines still apply. Programs not accepted for technical program can then be requested to be presented during the TC meeting; still need to undergo same commercialism review. Presentations must be completed/uploaded for commercialism review before deadline (enforce it), e.g. June 2, 2017 for Long Beach.

Will start enforcing a 3 strike policy for speakers that do not comply (2yr probation). Discussion about the process and rules imposed on the process, create distractions; Need to prepare a simple document with straight forward guidelines & rules; CEC should engage and collaborate more with TCs

- Publications Committee: TCs can develop ASHRAE publications in several ways: Research projects, Special projects, TC approved efforts, MTG managed efforts, Conference compilations. TCs should look for opportunities to update; looking for ideas for new publications.

## 8. Old Business

- a. TC-Name and Scope. Mr Balaras presented some background information. The Committee voted in St. Louis to change TC committee name to "TC 6.7 and Solar and Other Renewable Energies." There was a pending issue to consider the necessary changes in the Scope. The Chair circulated a recommendation for the necessary changes as a straw poll in August 2016. There were no clear responses by the Committee members in order to proceed to a Letter Ballot, so the proposed changes were postponed for Las Vegas.

Mr. Balaras called for a motion to approve the TPS of TC 6.7. Mr. Nagidi moved and Ms. Means seconded

**MOTION 2:** that *"Technical Committee 6.7 is concerned with all equipment, processes and systems which collect, convert, store and utilize solar energy or other renewable energy sources. Overlap with other TCs is recognized where specific systems are included to utilize or distribute energy heat or electricity."*

Chair called for discussion. Mr. Merrigan made a friendly amendment that discussion in an earlier meeting had recommended adding "as" before "heat or electricity." There was general agreement and Janice Means read the new language: *"Technical Committee 6.7 is concerned with all equipment, processes and systems which collect, convert, store and utilize solar energy or other renewable energy sources. Overlap with other TCs is recognized where specific systems are included to utilize or distribute energy **as** heat or electricity."* (Emphasis added to indicate the editorial modification).

Chair called for a vote.

**VOTE: Motion was approved: 6-0-0-3-CV.**

- b. ASHRAE Standard 93-2010. The ASHRAE Standards Committee requested from TC 6.7 to review ASHRAE Standard 93-2010 (RA 2014), Methods of Testing to Determine the Thermal Performance of Solar Collectors and recommend whether the standard should be revised, reaffirmed, or withdrawn. General discussion followed, including an indication that 93-2010 had been the basis for ISO 9806, but had been previously retained between ISO 9806 did not address solar thermal air-based collectors. It was noted by Tim Merrigan that ISO 9806 2013 now does address solar thermal air-based collectors.

Mr. Balaras called for a motion to withdraw ASHRAE standard 93-2010. Mr Merrigan moved and Mr. Nagidi seconded

**MOTION 3:** to recommend that ASHRAE Standard 93-2010 Methods of Testing to Determine the Thermal Performance of Solar Collectors be withdrawn.

Discussion followed about references from other standards to 93-2010, but that the standards updating process would address that issue.

Chair called for vote.

**VOTE: Motion was approved: 6-0-0-3-CV.**

**ACTION ITEM #5: Mr. Smith to investigate with ASHRAE Standards Committee adoption of ISO 9806 in place of ASHRAE STD 93.**

9. Chair Costas Balaras departs in order to chair a technical seminar in the conference program. Janice Means assumes duties as acting chair for the remaining of the meeting.
10. Standing Committee liaisons – none-present.
11. Subcommittee reports:
  - a. (did reintroductions of committee members, as several guests had arrived)
  - b. Handbook: Marija Todorovic. Had not been able to attend subcommittee meeting the previous day. No report. Noted that TC 2.5 needs reviewers).
  - c. Program: Khalid Nagidi. – Upcoming annual meeting June 24-28, 2017 in Long Beach, CA. Read tracks <https://ashraem.confex.com/ashraem/s17/cfp.cgi>. Has received two proposals for a conference session. First topic - 2 speakers. Need to fine tune abstracts. 2<sup>nd</sup> topic – 3 speakers. Costa Kapsis proposed case study for library in Canada . TC 2.8 will cosponsor sessions. Discussion of types of presentations – seminars, conference papers, workshops, etc. Maria Todorovic called for proposal for workshop – Standard approach to BIPV.

**ACTION ITEM #6: Ms Todorovic will send information on workshop to Khalid Nagidi.**

**ACTION ITEM #7: All titles, abstracts and Q&A to Mr Nagidi and Ms Todorovic no later than 5 Feb. (note: post meeting, Khalid send email that deadline was extended to 9 Feb to get due-outs to him.)**

Khalid Nagidi will chair conference session 1. Mike Case will chair conference session 2. Svein Morner will chair workshop proposed by Marija.

Janice Means reported that TC2.8 Solar Marketplace – concept from Paul Torcellini (NREL) asked 6.7 to co-sponsor Building Sustainability seminar. TC 2.8 has agreed to co-sponsor TC 6.7 programs. TC 6.8 will also co-sponsor.

- d. Research. Jim Leidel reviewed the Research ideas (RTARS). Research and Topic Acceptance Request. Budget up to \$1000 goes to RAC. Over that goes to TC 25. Refer to strategic goals from strategic plan. Good to have other TCs co-sponsor.

Next submission May 15<sup>th</sup> – 3 times a year. Costa Kapsis recommended tool to do analysis of BIPV and other technologies.

**ACTION ITEM #8: Mr. Leidel to circulate to the TC 6.7 members the spreadsheet with the possible RTARs for comments.**

- e. Website: Svein Morner – Requested an electronic copy of 2013-2015 minutes in order to upload them on the TC 6.7 website.

**ACTION ITEM #9: TC 6.7 Members to look through their records for 2013-15 minutes and send them to Mr Morner.**

With regard to ASHRAE website policies, Swein Morner cited the ASHRAE Policy and Procedure for Format, Activity, and Content of Web Sites for ASHRAE Groups, which states that links for the TC webpage can be ASHRAE or non-commercial sites. Chair decides what can be posted. Non-commercial websites are OK.

12. New Business

- a. Mike Case suggested that people start thinking about Technical Papers for 2018 Winter meeting in Chicago, as the lead time is very long.

13. Cyrus Nasser, Standards Liaison, visited to get result on the vote on ASHRAE Standard 93-2010. He was informed by Mike Case that TC 6.7 voted to withdraw standard, 7-0-0-2-CV

14. The meeting was adjourned at 3:02 pm

Respectfully submitted,

A handwritten signature in black ink, appearing to read "MP Case". The signature is written in a cursive, flowing style.

Mike Case, TC 6.7 Acting Secretary