**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.**

1791 Tullie Circle, N.E./Atlanta, GA 30329 USA

**TC/TG/TRG MINUTES COVER SHEET**

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

TC/TG/TRG No.: TC 1.09

TC/TG/TRG TITLE: Electrical Systems

DATE OF MEETING: Tuesday, July 1, 2014

LOCATION: Seattle, WA

<table>
<thead>
<tr>
<th>MEMBERS PRESENT</th>
<th>YEAR APPT'D</th>
<th>MEMBERS ABSENT</th>
<th>YEAR APPT'D</th>
<th>EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE</th>
</tr>
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<tbody>
<tr>
<td><strong>Voting Members</strong></td>
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<td><strong>Voting Members</strong></td>
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<td><strong>International Members</strong></td>
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<tr>
<td>Steven Faulkner</td>
<td></td>
<td>Kenneth Luther</td>
<td></td>
<td>Dr Marija S Todorovic</td>
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<td>Armin Hauer</td>
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<td>Ram Narayannamurthy</td>
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<td>Larry Markel</td>
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<td>Frank Pucciano</td>
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<td>Michael Todd</td>
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<td>John Nix</td>
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<td>Charles Foster</td>
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<td>Steve Rosenstock</td>
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These draft minutes have not been approved and are not the official, approved record until approved by this committee.
Richard Rundus  
Colleen Smith  
Leo Stambaugh  
Dr John Stoops  
Louis Sulfstede  
Paul Tanpitukponoje  
Marvin Thedford  
Gary Throckmorton  
Russell Tiffany  
William Warren Jr.

DISTRIBUTION:
ALL MEMBERS OF TC/TG/TRG (and meeting guests)
TAC Section Head: Jeff Traylor  
Chapter Tech Transfer: Alexander Weiss  
Research Liaison: Art Giesler  
ALI/PDC: Hugh McMillan  
HB Applications: John Pennington

ASHRAE TC/TG/TRG ACTIVITIES SHEET

MEETING DATE: July 1, 2014

TC/TG/TRG NO.: TC 1.09  
TC/TG/TRG TITLE: Electrical Systems

CHAIR: Frank Pucciano  VICE CHAIR: Larry Markel  SECRETARY: Michael Todd

TC/TG/TRG MEETING SCHEDULE

<table>
<thead>
<tr>
<th>Location – Past 12 Months</th>
<th>Date</th>
<th>Location – Planned Next 12 Months</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>New York, New York</td>
<td>1/21/14</td>
<td>Chicago, Illinois</td>
<td>1/2015</td>
</tr>
<tr>
<td>Seattle, Washington</td>
<td>6/28/14</td>
<td>Atlanta, Georgia</td>
<td>6/2015</td>
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TC/TG/TRG SUBCOMMITTEES

<table>
<thead>
<tr>
<th>Function</th>
<th>Chair</th>
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<tbody>
<tr>
<td>Standards</td>
<td>Ken Luther</td>
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<tr>
<td>Research</td>
<td>Larry Markel</td>
</tr>
<tr>
<td>Program</td>
<td>John Nix</td>
</tr>
<tr>
<td>Handbook</td>
<td>Frank Pucciano</td>
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<tr>
<td>Webmaster</td>
<td>Steven Faulkner</td>
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RESEARCH PROJECTS – CURRENT

<table>
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<tr>
<th>Project Title</th>
<th>Contractor</th>
<th>Monitoring Committee</th>
<th>Report Made At Meet</th>
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<tbody>
<tr>
<td>None</td>
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## Long Range Research Plan

<table>
<thead>
<tr>
<th>Rank</th>
<th>Title</th>
<th>W/S Written</th>
<th>Approved</th>
<th>To RAC</th>
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</thead>
<tbody>
<tr>
<td>None</td>
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## Handbook Responsibilities

<table>
<thead>
<tr>
<th>Year &amp; Volume</th>
<th>Chapter</th>
<th>Title</th>
<th>No</th>
<th>Deadline</th>
<th>Handbook Liaison</th>
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<tbody>
<tr>
<td>2015 HVAC Applications</td>
<td>Electrical Systems</td>
<td>56</td>
<td>2014</td>
<td>Brian Rock</td>
<td></td>
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</tbody>
</table>

## Standard Activities – List and Describe Subjects
None

## Technical Papers from sponsored research – title, when presented (past 3 years, present and planned)
None

## TC/TG/TRG Sponsored Symposia – title, when presented (past 3 years, present, and planned)
None

## TC/TG/TRG Sponsored Seminars – title when presented (past 3 years, present, and planned)
6/11 Electric Vehicles and Net Zero Energy Buildings: A Perfect Match or an Odd Couple

## TC/TG/TRG Sponsored Forums – title, when presented (past 3 years, present, and planned)
None

## Journal Publications – when published (past 3 years, present and planned)
None

Submitted By: Michael Todd
Secretary
1. CALL TO ORDER

Introduction of Members and Guests.

Technical Committee 1.9 was called to order at 3:40 pm at the Sheraton in Seattle, Washington. Technical Committee Member introductions were made. The chairman read the ASHRAE code of ethics and the scope of TC1.9. Absent Members are identified on the cover sheet.

Frank Pucciano reviewed the membership list to determine if a quorum was present. A quorum was present with 6 out of 7 voting members present.

2. APPROVAL OF MINUTES AND REVIEW OF ACTION ITEMS

Chair Frank Pucciano reported the drafted minutes for the New York meeting were sent out via e-mail.

Motion: A motion to approve the New York minutes was given by Larry Markel and a second by Steven Faulkner. A vote was taken and the minutes from the New York meeting were approved with a 6-0-0 vote.

Report Action Items:

None.

3/4. TC MEMBERSHIP and COMMITTEE APPOINTMENTS

Report on changes in voting members.

New positions rolling on after this meeting:

Chair – Larry Markel
Vice Chair – Michael Todd
Secretary – Charles Foster
Webmaster – Steven Faulkner
Programs – John Nix
Handbook – Armin Hauer

5. CHAIR REPORT: Frank Pucciano

Frank and Larry presented a summary of the TC Chair meeting. The Track chairs get to decide what programs are accepted for conferences. It was recommended to go to the track chairs to
help understand why seminars, forums, workshops, and papers are not accepted. ASHRAE seems to be approving more and more workshops to get in the younger crowd and not putting as much focus on forums. Three strikes for bad speaking reviews are still in effect and letters continue to be sent out. The New York and Seattle conferences were the most expensive conferences ever held. One contributing factor is hotels aren’t giving as good rates because they feel the economy is turning around.

**Up and coming meetings:** Chicago, Illinois January 24 to 28, 2015

6. **SUBCOMMITTEE REPORTS**

A. **Standards: Ken Luther**

None.

B. **Research: Larry Markel**

RAC approved the co-sponsoring with TC 6.9 (Thermal Storage) of the work statement 1607 “Use of thermal energy storage to mitigate variability of as-available renewable energy”. Proposals may be evaluated starting at the Chicago meeting.

C. **Program: John Nix**

Deadline for Chicago seminar, forum, and workshop proposals is August 11, 2014.

TC 6.9 is discussing a program: “Thermal storage and utility grid management using SMART meters and SMART grids”.

“Smart Inverter Standards, to Manage Your Smart Building While Connected to the Smart Grid” was originally submitted for Seattle as a workshop (supposed to be held as part of our TC meeting but not listed in the program) and resubmitted for Chicago as a workshop. More discussion followed with the example of Hawaii having the problem of different load profile and lots of non-inertia power generation, which causes grid fluctuations. The idea of changing this topic to a conference paper was also discussed; however, there is not much time to include as a paper for Chicago but instead might be targeted for Atlanta.

Another topic discussed was “Using SMART meters and demand response to continuously commission your building”. A conference paper is more work but has a better chance of getting approved.

Lastly, another idea discussed was “Meters and management, putting your building back into shape” as a potential seminar with the following speaker topics:

- Continuous metering
- SMARTs on renewable energy and storage
- Case study

Larry is to call the track chair to investigate his opinion on whether or not a seminar may work for Atlanta and to find out what he is looking for.

John is to also talk to some people to see how we are stacking up for seminars in Atlanta.
D. Handbook: Frank Pucciano

The handbook was submitted back in March and on time. Frank appreciated everyone’s input and help. The updated version will be published in 2015. Proof expected before December, 2014. This proof should serve as the next starting point for the next handbook revision. Armin is rolling on as handbook chair.

Armin made a request to coordinate our chapter with TC1.11 in order to avoid duplication.

*Basecamp* is a program to help foster collaboration on revisions on a single document with lots of parallel editors (ECCE purchased 10 pilot licenses) and might be excellent for future handbook development.

E. Membership: Larry Markel

The group continued to discuss the need to attract new and younger members. The group had an idea to send someone to the YEA mixer to give a quick 10 minute presentation or to handout a flyer about our TC.

Another idea would be to start a discussion on the ASHRAExChange or post a video on our website or link to a Facebook page about this TC.

Lastly, another idea was introduced to use a research meeting to present (open meeting) a topic in order to help gather more members.

F. Professional Development Committee (PDC Coordinator): John Nix

The Rates course will have definitions removed and be re-titled. It will be published as an ASHRAE online seminar for Monday October 13, 2014 as “Maximizing Customer Benefits Using Key Electric Utility Products”.

7. WEB SITE: Steven Faulkner

Steve needs to update the website. The website update process is cumbersome and it was suggested to discuss this problem with ECC and TAC.

8. LIASION REPORTS

Section Head: None.

RAC: The new RTAR form is in effect and seems to be going well. ASHRAE is still low on research projects and has money for projects. There is no backlog and if few projects are received soon, money will be added to the research reserve.

9. OLD BUSINESS

None.
10. **NEW BUSINESS**

   Steve mentioned the possibility about hosting a conference tour to Georgia Power’s customer center during the upcoming meeting in Atlanta. Another idea was linking a virtual tour video of the center with ASHRAE’s virtual conference as a green alternative. Steve to investigate further.

   Frank thanked everyone for coming to the meeting.

11. **ANNOUNCEMENT OF NEXT MEETING**

   Chairman Frank Pucciano announced that the next meeting would be held in Chicago, Illinois in January 2015 at the same time on Tuesday.

12. **ADJOURNMENT**

   Steven Faulkner made a motion to adjourn with a second from John Nix. Motion carried 5-0-1.

   Respectfully Submitted,
   Michael Todd
   Secretary, TC 1.09