

Meeting Minutes: TC 6.2 District Energy  
Sunday, 2018-01-21, Chicago, IL

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TC 6.2 District Energy  
Sunday, 1:00 pm – 3:00 pm, Palmer House

Voting Committee Members

Mr. Alan Neely	6/30/2020	Mr. Michael Calabrese	6/30/2020
Mr. Geoffrey Bares	6/30/2020	Mr. John Andrepont	6/30/2017
Ms. Jessica Mangler	6/30/2020	Mr. Drew Overmiller	6/30/2017
Mr. Lawrence Markel	6/30/2019	Mr. Christian Paraskevakos	6/30/2017
Mr. Jay Eldridge	6/30/2018		

New Incoming Voting Committee Members

Mr. Scott Murray	7/1/2017	Mr. Steve Tredinnick	7/1/2017
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1. The Chair Called to Order, and discussed the following.

Technical Committee 6.2 is concerned with district energy technology and integrated systems that provide one or more forms of thermal energy or a combination of thermal energy and electric power from a central plant(s) to meet the heating, cooling, or combined thermal energy and power needs of end-users in two or more structures. The TC collects and disseminates information on regional resource planning including the design, performance, economic analysis, operation and maintenance of central plants, distribution networks, and consumer limited to materials, construction methods, heat transfer, fluid flow, and measurement. The scope of the TC includes the development and assessment of associated technologies for energy use sections.

- A. Agenda & Attendance Handouts
- B. ASHRAE Code of Ethics Commitment – TC Chairman – Alan Neely
- C. Members & Guests Introductions

2. Voting for Approval of Minutes from 21<sup>th</sup> January, 2018 meeting in Chicago, IL.

- A. Not completed. Need quorum.

3. Announcements by Chair:

- i. Section 6 Breakfast: Conferences & Expositions Committee (CEC)
  - (1) 2018 Chicago, IL
    - Track 1: Fundamentals and Applications  
Track Chair: Frank Schambach ([frankschambach@mindspring.com](mailto:frankschambach@mindspring.com))
    - Track 2: HVAC&R Systems and Equipment  
Track Chair: Jennifer E. Leach ([pennst8jen@yahoo.com](mailto:pennst8jen@yahoo.com))
    - Track 3: Refrigeration  
Track Chair: Vikrant Aute ([vikrant@umd.edu](mailto:vikrant@umd.edu))
    - Track 4: Building Life Safety Systems  
Track Chair: Robert Alan Neely ([alan\\_neely@pghcorning.com](mailto:alan_neely@pghcorning.com))
    - Track 5: Controls – Smart Building Systems and the Security Concerns as Technology Emerges  
Track Chair: Melanie Derby ([derbym@ksu.edu](mailto:derbym@ksu.edu))
    - Track 6: Commissioning – Optimizing New and Existing Buildings and their Operation  
Track Chair: Dennis Alejandro ([denzjac@yahoo.com](mailto:denzjac@yahoo.com))
    - Track 7: Zero Net Energy Buildings – The International Race to 2030  
Track Chair: Jason DeGraw ([jason.degraw@nrel.gov](mailto:jason.degraw@nrel.gov))

- Track 8: Residential Buildings – Standards Guidelines and Codes  
Track Chair: Kimberly Pierson ([kdpwildcat@gmail.com](mailto:kdpwildcat@gmail.com))
  - Track 9: Research Summit  
Track Chair: Ann Peratt ([ann.peratt@gmail.com](mailto:ann.peratt@gmail.com))
- (2) 2018 Summer Houston, TX
- (a) Thursday, 2018-01-11: Website Opens for Seminar, Workshop, Forum, Debate and Panel Proposals
  - (b) Monday, 2018-01-15: Conference Paper Accept/Revise/Reject Notifications
  - (c) Friday, 2018-02-09: Program (Seminar, Forum, Workshop, Debate and Panel) Proposals Due
  - (d) Friday, 2018-02-09: Revised Conference Papers/Final Technical Papers Due
  - (e) Monday, 2018-02-19: Conference and Technical Paper Final Accept/Reject Notifications
  - (f) Tuesday, 2018-03-01: Registration Opens
  - (g) Monday, 2018-03-19: Seminar, Forum, Workshop Accept/Reject Notifications
  - (h) Monday, 2018-04-30: Upload of PPTs Begin
  - (i) Friday, 2018-06-01: All PPTs Due Online
  - (j) Wednesday, 2018-06-20: Final Day for Commercialism Revision Upload prior to on-site
  - (k) Saturday, 2018-06-23: Speaker's Lounge Opens
  - (l) **Conference begins (2018-06-27)**
- (3) Program Statistics for Long Beach: total of 107 available slots
- (a) Conference Papers
    - (i) 151 abstracts submitted, 129 approved
    - (ii) 71 papers received
    - (iii) 20 conference papers presented
  - (b) Technical Papers
    - (i) 27 received
    - (ii) 19 technical papers presented
    - (iii) 6 technical paper presentations
  - (c) Seminars
    - (i) 121 submitted
    - (ii) 61 presented
  - (d) Workshops
    - (i) 13 submitted
    - (ii) 9 presented
  - (e) Forums
    - (i) 11 submitted
    - (ii) 4 presented
  - (f) Debates (New)
    - (i) 4 submitted
    - (ii) 3 presented
  - (g) Panel (New)
    - (i) 5 submitted
    - (ii) 2 presented
- ii. Programs: Review of the upcoming annual conference, 2018 Houston programs
- (1) Blake Ellis attempted to get all of the energy chairs together for a coordination of the sessions. These included TCs 1.10, 6.2, 6.9
  - (2) Open discussion for upcoming Houston sessions
    - (a) Ideas discussed were
      - (i) Creation of a morning session to have all energy sessions concurrent.
      - (ii) District energy track. Topics discussed include, Natural Disasters, hurricanes, Weathering the storm, etc.
  - (3) January 2018 a general synopsis, four proposed sessions are to be reviewed.

- iii. Concept for the Houston Conference would be to have a few local hospitals, such as MD Anderson, Methodist, etc. to discuss the issues around this topic. higher education could be another item. Example used was Juan at UTA from IDEA.
- iv. Tours for Houston discussion by Michael Langton
  - (1) 45MW@Teco, NRG plant which serves the stadium, and a few others customers such as Texas Children's Hospital
  - (2) Local Airports.
  - (3) Potentially focus on natural disaster concepts
  - (4) Expressed was the need for tour volunteers
  - (5) Blake Ellis, proposed to make all tours available for the district energy track attendees.
- B. CEC Call for Reviewers: 2018 Annual Meeting and others. Contact Tiffany Cox ([tcox@ashrae.org](mailto:tcox@ashrae.org)) and copy TC Chair & Vice Chair
- C. Seminar, workshop or forum
  - i. Open discussion of which all discussed which one is better and what the definitions of these are.
  - ii. The Chair discussed that at the TC breakfast this morning, it was explained that the presenters do not get CEUs for their presentation. Chair to review the NY PE rules.
  - iii. TC is in need of speakers for this, and decision on which format to propose to follow. should submit about two or three presentations. Chair discussed the need for someone to complete an abstract. A question posed, does the TC want other TCs to co-sponsor discussion.
  - iv. Terrance Raulins gave a workshop this morning on some case studies, interactive This was more focused on the O&M. TC 7.3, could help in the future with this.

#### 4. Sub-Committee Reports:

- A. Handbook: Steve Tredinnick (Chair)
  - i. Chair reported to the group that he is using an authoring portal. Chapter 12 District Heating and Cooling and Chapter 13 for High Temperature Hot Water from TC 6.1 who are no longer completing updates.
  - ii. Steve will discuss with Gary ? and get formulas integrated. One year from now we should be voting on it. Topic should be resume in Houston meeting. Request was made for reviewers of the Chapters.
  - iii. If members need to access the authoring portal, they must be on the roster. The user can't use Chrome, a newer MS Word version, and the user can't use Edge. Follow up on how to get in- Authoring.ashrae.org use your ASHRAE password, must be on roster for the TC, corresponding can use it too.
- B. Membership: John Andrepont (Chair)
- C. Program: Tim Anderson (Chair)
- D. Standards: Open
- E. Webmaster: Jessica Mangler
- F. Research: Jay Eldridge (Chair)
  - i. This committee is member of TC. Discussed were topic of Turbo Inlet Cooling for Combustion. Chair of TC 1.10. This was approximately \$75,000 for the project cost with \$5,000 is from turbo inlet contributors.

#### 5. New Business-

- A. Jeff Sloan discussed ASHRAE's Standard 90.4 committee, a new Energy Standard for Data Centers.
- B. Discussion of district energy plant scope inclusion opportunities in the 90.1 standard.
  - i. There is a coordination meeting tomorrow, 2018-01-22 at 7:30am between 90.1 and TC 6.2. This includes Gary Ash, Tim (MD Anderson), Representative from Arkansas State.
  - ii. It was discussed but generally, the TC is not in favor of a plant efficiency standard. It's inherent by using the other standards, except for pipe sizing. TC representative needs to attend that meeting.

#### 6. Meeting Adjourned, to be resumed at 3:00 pm.

7. The Chair Called to Order, and discussed the following.

- A. Visitors announced
- B. Attendance sign in list
- C. ASHRAE Code of Ethics Commitment by TC Chairman – Alan Neely
- D. Voting Quorum discussed. TC needs two additional Voting Members.
  - i. To be Voted on: Long Beach Meeting Minutes and New Members.
- E. Chicago Sub-Committee Meeting
  - i. Three to four presentations under dTCs District Energy topic.
  - ii. Abstracts are due 2018-02-19.
- F. Programs: Review of the upcoming annual conference, 2018 Houston programs
  - i. Creation of a morning session to have all energy sessions concurrent.
  - ii. District energy track. Topics discussed include, Natural Disasters, hurricanes, Weathering the storm, etc.
- G. Papers: Motion from Jessica Mangler to approve the TC 1.10 paper. TC 6.2 to co-sponsor three papers from other TCs. Motion seconded by Geoffrey Bares, all other voting members approved, none declined.

8. Liaison Discussion:

- A. Section Head of TC 90.4
- B. Earl Williams, past Chair of TC 6.2
- C. DOE-
  - i. The Technical Assistance partnership, will be funded next year, they are waiting for the budget. Government is currently shutdown. They want resiliency in various jurisdictions. They are creating a web based e catalog which will be piloted this year. For anyone who wants to provide a package, take standard data and make a performance system, it reduces risk, and reduces cost and time.
- D. IDEA-
  - i. He described what idea is and about the Campus energy coming up. There is no conflict with ASHRAE conference
- E. Section head of TC 6.
  - i. Will help with submissions and new items. Authors will be allowed another submission by 2018-03-15. Innovated research grants, 41 submissions, they awarded to TC 6.7
  - ii. They need the full TC approval for processing, it's stated to best discuss in-person.

9. Sub-Committee Reports:

- A. Research:
  - i. Discussed were topic of Turbo Inlet Cooling for Combustion. Updating the Turbine Inlet Cooling Design Guide. Guide to add in Middle East design specifics. The second update is intended for the building owner of District Cooling. Concern was expressed that this guide will not include reviewers from this TC. The ASHRAE contact person is Steve Comstock.
- B. Handbook: Steve Tredinnick (Chair)
  - i. Chair reported to the group Chapter 12 and Chapter 15 updates. Revised equations need updating from the Design Guide with Handbook. Chapter 15 requires some grammatical updates. The Sub-Committee needs a projector to use at the Houston meeting.
- C. Membership: John Andrepont (Chair)
  - i. The minimum number of voting members required is eight. Post this Winter meeting, the Chair is to update the TC roster. Submit emergency paperwork to update non-voting members to become voting members. Use the website to request TC membership.
- D. Webmaster: Jessica Mangler
  - i. The website has recently been updated. Please review.

10. New Business:

A. Open Discussion:

- i. Guest from the Standard 90.4 committee
  - (1) Has a coordination request amongst TCs. Data centers use energy and he would like to correspond with anyone who has ideas on this topic. Standard 90.4 for CHP is a good idea. In Seattle, Amazon has a small microgrid system which has made this topic relevant for discussion.
- ii. For District energy plants Standard 90.1 doesn't apply. There may be opportunities for inclusion of the Standard 90.1 scope in the standard for inclusion of the joint TCs. Equipment efficiency only, not for process. It was mentioned that energy metering be included.
  - (1) Gary Ash from OSU discussed his experiences with District Heating flash steam losses. He uses DDC monitoring on all steam traps to monitor real time.
- iii. The scheduled meeting tomorrow morning, 2018-01-22, may be cancelled.
- iv. Chair to schedule a conference call to discuss between the TCs, preferably in March 2018.

**11.**Motion to Adjourn Meeting

Subcommittee Meetings,

Day, Date, Times, & Location Prior to TC 6.2 Meeting:

TC 1.08 Handbook - Sunday, 2018-01-21, 8:00 -10:30 am, Palmer House

TC 1.08 Program - Sunday, 2018-01-21, 10:30 -11:00 am, Palmer House

TC 1.08 Research - Sunday, 2018-01-21, 11:00 - 12:00 pm, Palmer House