

**Agenda: TC 6.2 District Energy**  
**Hybrid Summer Conference (June 25<sup>th</sup>, 2023)**

<https://tc0602.ashraetcs.org/>

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**TC 6.2 Main Committee Meeting**

Sunday, June 25<sup>th</sup>

2023 3:30 pm – 5:30 pm EDT

Team Meeting Information:

- [Click here to join the meeting](#)

**Technical Committee Members**

8 Voting Members and 0 Non-Quorum Voting Members

Need minimum 5 Voting Members Present to meet Quorum

Name	Position	Voting Status
Mr. Daniel Pyewell	Chair	Voting
Ms. Jessica Mangler		Voting
Mr. Michael Calabrese		Voting
Ms. Timothy Anderson	Vice Chair	Voting
Geoff Bares	Programs Subcommittee Chair	Non-Voting
Mr. Jayson Bursill	Webmaster	Non-Voting
Mr. Jay Eldridge	Research Subcommittee Chair	Non-Voting
Mr. Wangda Zuo	Research Subcommittee Co-Chair	Non-Voting
Mr. Steven Tredinnick		Non-Voting
Mr. Mohamed Alagraa		Voting
Ms. Elizabeth (Betsy) Goll	Handbook Subcommittee Chair	Voting
Mr. Scott Murray		Non-Voting
Mr. Richard Sweetser	DOE Liaison	Non-Voting
Mr. John Andrepont	IDEA Liaison	Non-Voting
Mr. Dustin Meredith	TAC Chairperson	Non-Voting
Mr. Dawen Lu	Section Head	Non-Voting
Ms. Elizabeth Zakelj	Chapter Technology Transfer Chair	Non-Voting
Mr. Omar Abdelaziz	Research Liaison	Non-Voting
Mr. Craig Wray	Standard Liaison	Non-Voting
Mr. Steven Hammerling	Staff Liaison	Non-Voting
Gary Phetteplace		Voting
Bill Ryan		Voting
Alan Neely	Membership Chair	Non-Voting
Charles Bertuch	Secretary	Non-Voting

1. Call to Order: (TC Chair- Daniel Pyewell)

- a. 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.

2. ASHRAE Code of Ethics Commitment – (TC Chair – Daniel Pyewell)

- a. In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)

3. Introduction / Attendance - (TC Chair – Daniel Pyewell)

- a. Please state your name, company/location, & position on committee.
- b. Secretary for the meeting (Charles Bertuch) to take attendance, via the membership roster, attendance sheets, and online Team's meeting.
- c. Members & Guests Introductions and Sign In
- d. Establish a Quorum, Review of Current Voting Members and TC 6.2 Officers (Ref. Manual of Procedures – 3.2.2, 2.13, 2.14 & 2.15)
- e. Discuss recruiting new members and officers for this Technical Committee (TC 6.02). To become PCM, access "Join TC 6.2" under Membership on T.C. webpage

4. Approval of Minutes from Las Vegas, Toronto, and Atlanta hybrid meetings (posted to base camp)

5. Chair's Report (Daniel R. Pyewell)

- a. TC Breakfast Report (to attend on Sunday morning)

6. Sub-Committee Reports:

- a. Handbook: Elizabeth Goll (Chair)
  - i. Chapter 12 – vote on revision
  - ii. Chapter 15 – vote on revision
  - iii. District Cooling Guide – table for now to focus on update to Heating Guide
  - iv. Update to District Heating Guide. Betsy to chair. Charles Bertuch and Gary Phetteplace volunteered to help contribute.

- v. Reminder that 2<sup>nd</sup> edition of CTIC Design Guide is now available in the bookstore, \$86 for members and \$115 for non-members.

b. Membership: Alan Neely (Chair)

- i. New Members to welcome Mingzhe Liu, Julia Ho, Mahabir Bhandari, Yunshu Xu, Anthony Mueller, Arun Cherian, David Park, Sayani Haribabu, William Fisher, Tra Thai Thanh, Dr. Riley Barta
- ii. Voting Members. Dan, Betsy, and Mohamed will expire after summer meeting, but agreed to extend for a year. Alan Neely and Geoff Bares volunteered to become voting members by summer. Tim and Mike will drop off during summer.
- iii. Open positions – Programs, Standards (needed?)

c. Program: Geoff Bares (Chair)

- i. *No programs approved for Tampa*
- ii. *Future program submission may include:*
  - 1. *Decarbonization efforts on centralized district hydronic loop at NYU. Jin Jin to help coordinate efforts with Geoff.*
  - 2. *Princeton's conversion of steam system*
  - 3. *Potential T.C. co-sponsor of Lee Riback's program from T.C. 7.9, if to be re-submitted: "If Decarb = Electrification, do we have the power".*
  - 4. *Case Studies on new use of plastic underground piping for hot water systems (100 psi @ 180°F)*
  - 5. *Chris Fraughton offered to conduct seminar on heat pumps with district energy and decarbonization*
  - 6. *Ibrahim Hesham mentioned that he is willing to present on TES based on data he has collected from systems in Dubai/ Middle East.*
  - 7. *There's another campus turned over to a heat pump system in south Minnesota. Another steam plant retired. If there is another example to add, this could make a good seminar.*
  - 8. *Open to other suggestions. Solar farms and district energy; is there a place for this combination?*
  - 9. *Steam Training Workshop – for Phoenix?*

d. Standards: Open

- e. Webmaster: Jayson Bursill (Chair)
  - f. Research: Jay Eldridge (Chair) and Wangda Zuo (Co-Chair) (delay to end of meeting for Fine's attendance)
    - i. Banking of Cold in CHW Loop – RTAR chaired by Jamie Fine
      - 1. Thomas Lawrence – University of Georgia – happy to support and be Co-Chair
        - a. Jamie to provide status of RTAR
      - ii. Co-sponsored RP (RP 1890) on adequate flushing velocities in hydronic systems (Gary to provide update)
7. Visitors & Liaison Reports/Information from other Committee Representatives
- a. DOE- Richard Sweetser
    - 1. Discuss review effort for thermal storage system architecture report from US Army (Alexander Zhivov). Daniel Pyewell to chair effort. Ask for volunteers.
  - b. IDEA- John Andrepont
  - c. Building Decarbonization Task Force – Alan Neely
  - d. ANSI/CSA/IGSHPA C448 Standard (Jessica Mangler, Lisa Meline, Steve Tredinnick, Gary Phetteplace)
    - i. Serving on committee for updated standard of ANSI/CSA C448.1-16 (Design and installation of ground source heat pump systems for commercial and institutional buildings)
    - ii. Adding District Energy Section.
    - iii. Meeting about once a month.
    - iv. Let us know if you're interested in reviewing drafts copies of the standard and providing comments.
  - e. Other TCs
    - i. 6.1 – Hydronic & Steam Heating Equipment and Systems
    - ii. 6.5 – Radiant Heating & Cooling
    - iii. 6.6 – Service Water Heating

iv. 6.7 – Solar and Other Renewable Energies

v. 6.8 - Geothermal Heat Pump & Energy Recovery Applications

1. NYSERDA & ASHRAE

vi. 6.10 – Fuels and Combustion

f. Handbook

g. Research (Stefan Elbel)

h. TAC Chairman (Dustin Meredith)

i. TAC Section Liaison (Doug Reindl)

j. Staff (Steven Hammerling)

k. Publications

- i. Publications Committee respectfully requests your input on possible topics, authors and reviewers for future ASHRAE Journal articles. It is our goal to enhance ASHRAE Journal's reputation as the preeminent publication in our industry. Each of you are most in tune with what our members are looking for to further their knowledge base. With this in mind, if you could respond with a topic or two with suggested authors and reviewers it would be greatly appreciated.

ii. Stephen Kavanaugh

1. ASHRAE Publications Liaison

2. Stephen is looking for any considerations in publications, or articles for journal. If any interest, please let the chair know and he will get them in touch with Stephen.

8. Old Business

- a. Decarbonization push (per discussion with Doug Reindl). What technology currently available to implement? Any efforts that can be made for R&D?

9. New Business

- a. Contact Daniel & Tim Anderson if you're interested in serving any positions on this TC
- b. Reviewers of ISO 52001 – Charles Bertuch, Ibrahim Hesham Hassanien, and Nan Chen. No update per Charles.
- c. T.C. is now on basecamp! If not added in group, please follow up with Daniel or Tim Anderson.

- d. Input into strategic plan (as mentioned from Doug Reindl) in last meeting. Request consideration and feedback from T.C. Charles Bertuch offered to review and advise on in Tampa. Charles indicates strategic plan is outdated and requested newer version (request sent to Doug Reindl).
- e. Daniel Pyewell will be rolling off as chair, with Tim Anderson becoming chair. Daniel Pyewell will take vice chair in interim until volunteer for position is accepted.

10. Thank you serving on TC 6.02 and volunteering for ASHRAE!

11. Adjourn