

Technical Committee Meeting Minutes  
Technical Committee, TC 1.10 Combined Heat and Power Systems  
Friday, 2022-02-01, Hybrid Webex (Las Vegas, NV)

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TC 1.10 Combined Heat and Power Systems – Committee Meeting

Tuesday, 1:00 pm – 3:00 pm, Hybrid Webex (Las Vegas, NV)

<https://ashrae.webex.com/ashrae/j.php?MTID=m0dce9a865067f9344aaa0fe1eb410dc1>

Voting Members:

<u>Name</u>	<u>Position</u>	<u>Position</u>	<u>Name</u>
Blake Ellis	Chair (VM)	DOE liaison	Richard Sweetser (Non-VM)
Geoff Barnes	Vice Chair (Non-VM)		
Michael Calabrese	Secretary-Webmaster (VM)		
Gearoid Foley	Program Subcommittee Chair (VM)		
Dragos Paraschiv	Handbook Subcommittee Chair (VM)		
Farzin Rad	Research Subcommittee Chair (VM)		
Dan Pywell			
Dharam Punwani	Not present		
Marija Todorovic	Not present		

1. The Chair (Blake Ellis) Called to Order at 1:00 pm
2. ASHRAE Code of Ethics Commitment – Announced by TC Chair (Blake Ellis)

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 interest. (see full code of ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)

3. Introductions / Attendees
  - A. Name, company/location, & position on committee. Roll call.
  - B. Quorum has been established with at least 5 voting members present.
  - C. Introduction to ASHRAE Liaisons
    - i. Section Head report, Cory Metzger. Updates to the TC roster, message the section head for them to "submit". Activities reports are due tonight. Questioned if there is anything that TAC can assist the TC with? None.
  - D. Review of Current Voting Members and TC officers and Quorum.
    - i. Ref. Manual of Procedures – 3.33, 2.13, 2.14 & 2.15
  - E. Recruiting of new members and officers for this technical committee (TC 1.10) was discussed.
4. The secretary (Michael Calabrese) discussed the Purpose Statement

Technical Committee (TC) 1.10 is concerned with combined heat and power (CHP) systems, their cycles and components including heat recovery, combustion turbine inlet cooling (CTIC), energy conversion and system integration. The systems provide both power (electric and/or mechanical) and

thermal energy (heating and/or cooling) and are variously known as cogeneration systems; trigeneration systems; combined heat and power (CHP); and combined cooling, heating and power (CCHP) systems.

**5. Meeting Minutes from the 2021 Virtual (~~Phoenix, AZ~~) Annual Meeting**

- A. Copies of the draft minutes of the 2021 Annual meeting, were made available through the TC 1.10 website.
- i. Chair reviewed the minutes.
  - ii. A motion to approve the meeting minutes of the 2021 Virtual Winter Meeting.
  - iii. Motion by Gearoid Foley -VM, second by Farzin Rad-VM, all Yea, no Nay. Motion passed, 5-0-0.

**6. Sub-Committee Reports:**

A. Programs: Gearoid Foley (Sub-Committee Chair).

- i. Seminar was well attended, 40 people present in the room.
- ii. Summer 2022 Toronto. Dragos to review potential tours, no commitments to date.
- iii. Possibly have a Hospital facility for local tour
- iv. Seminar- not enough traction for 2022 Annual Summer Meeting. Will focus on 2023 Winter Meeting for Seminars.
- v. Interest with larger group such as heat pumps, PV, (CHP enabled) microgrids, etc.
- vi. Does this TC need to be more assertive with respect to building standards and decarbonization.
- vii. Mothusi Pahl – comment
  - (1) CHP component level opportunity, relating to scale.
  - (2) Hydrogen systems and blended systems should be discussed
- viii. Doug Davis – Comment
  - (1) Support education and broaden the scope.
- ix. Potential Topic –
- x. Motion to approve a two speaker seminar focused on “Innovative Residential CHP Systems”
  - (1) Motion by Gearoid Foley-VM, second by Farzin Rad-VM, all Yea, no Nay. Motion passed, 5-0-0.
- xi. TC 8.3 requests TC 1.10 co-sponsor Seminar “The State of the Art of Thermally Gridded “Heat Pump and Cooling Systems to Enable Decarbonization” in the Cold Climate Track
- xii. Motion to approve by Bill Ryan
  - (1) Motion by Bill Ryan, second by Dragos Paraschiv, all Yea, no Nay. Motion passed, 5-0-0.

B. Research: Farzin Rad (Sub-Committee Chair)

- i. Shared online content in hybrid webcast- ASHRAE Research Budget
- ii. RTAR, Site vs Source will align with the Research Strategic Plan
- iii. Hybrid Microgrid with PV and Battery Storage, etc.
  - (1) Develop methodology to optimize the connected building within the microgrid

C. Handbook: Dragos Paraschiv (Sub-Committee Chair)

- i. 2024 printed version and deadline is 2023. 6 reviewers volunteered to support the effort.
- ii. Two chapters for this TC
  - (1) Chapter 7 is the CHP
  - (2) Chapter 8 CTIC- need reviewers for this guide. Call for volunteers- Geoff Barnes.
- iii. Dragos will coordinate and the reviewers will be using the authoring portal

D. Membership: Chair

- i. Roster update is July 1, 2022
- ii. Geoff Bares will be voting member in July 2022
- iii. Michael Calabrese will remain as a voting member
- iv. Ahmad Abu-Heiba is interested in Secretary role.
- v. Bill Ryan is interested in voting member
- vi. Vikas Patnaik is interested in voting member
- vii. A motion was made for Geoff Bares as Chair, Michael Calabrese Vice Chair – there will be 9 voting members total
  - (1) Motion by Gearoid Foley, second by Dragos Paraschiv, all Yea, no Nay. Motion passed, 5-0-0.
- viii. Member non-quorum discussion with Chair.

- E. Website: Michael Calabrese (Webmaster)
  - i. Website is up to date.
  - ii. Meetings minutes (for this meeting), and handout documents will be posted on the website.
- F. Honors and Awards: Blake Ellis, Chair
  - i. Bill Ryan was awarded "Fellow".
  - ii. TC 1.10 members should keep their bio up to date. May 1<sup>st</sup> due date for nominations.
  - iii. May 1<sup>st</sup> submission dates. Holiday Distinguished Fellow, Boggs Service Award, Distinguished 50yr Member Award, Exceptional and Distinguished Service award. December 1<sup>st</sup> dates to follow.
- G. Standards: SPC 204, Ahmad Abuheiba (Sub-Committee Chair).
  - i. Standard Project Committee 204 "Method of Test for Rating Micro Combined Heat and Power Devices", will be updated.
    - (1) The Chair will be scheduling the first meeting to review, see online link, <http://spc204.ashraepcs.org/>

**7. Chairman's Overview and Report, TC Chair (Blake Ellis).**

- A. TC Chair breakfast
  - i. The chair provided an update from the January 30<sup>th</sup> email.
  - ii. Some TC's are holding bi-monthly, shorter duration subcommittee meetings.
  - iii. MOP change. The TC balance "shall" language.
  - iv. Utilization of MBOs for TC leaders. Historically has not been completed.
  - v. Decarb task force reported to the Society Board of Directors.

**8. Old Business-**

- A. None.

**9. New Business**

- i. DOE CHP e-catalog discussion and website reference was provided [www.chp.ecatalog.lbl.gov](http://www.chp.ecatalog.lbl.gov), trade ally network
  - (1) Send company contact information for trade ally listing.
- ii. Decarb task force reported to the Society Board of Directors.
  - (1) A TC 1.10 subcommittee will be formed to support the taskforce.
  - (2) Volunteers are Dragos Paraschiv, Farzin Rad, Richard Sweetser, Bill Ryan, Mothusi Pahl, Praveen
- iii. Motion by Michael Calabrese-VM, second by Gearoid Foley -VM, all Yea, no Nay. Motion passed, 5-0-0

**10. Upcoming Subcommittee and Committee Meetings**

- A. TC Chair (Blake Ellis) announced that there will be an online Subcommittee meeting prior to the Annual Meeting.
- B. The main committee meeting will be in-person.

**11. Adjourn**

- A. Announcement by TC Chair (Blake Ellis) to close this session at 2:40 pm.
- B. Motion by Michael Calabrese-VM, second by Gearoid Foley -VM, all Yea, no Nay. Motion passed, 5-0-0

Submitted by,  
Michael Calabrese  
TC 1.10 Secretary  
2022-02-01

**Subcommittee Meetings - Day, Date, Times, & Location Prior to TC 1.10 Meeting:**

TC 1.10 Handbook, Program, Research – Friday 2022-01-07, 12:00 pm – 1:30 pm, Remote Teams Meeting