



Shaping Tomorrow's
Built Environment Today

TC 7.6 Building Energy Performance

<https://tc0706.ashraetcs.org/>

Hybrid ([WebEx Meeting](#)) / Chicago, IL

Tuesday, January 23rd, 2024, 1:00-3:00 pm CST

TC 7.6 Date: 2024 – 01-23

Time: 1:00-3:00 PM EDT

Location: Chicago, IL

TC Title: Building Energy Performance

Attendees:

Name	Affiliation	Voting	YEA	INTL
Amanda Webb	University of Cincinnati	VM	No	No
Annie Smith	Introba	VM	Yes	No
Nicholas Long	NREL	VM	No	No
Michael Rhodes	FSC	Guest	No	No
Aykut Yilmaz	DOEE	CM	No	No
Christine Reinders	Iowa State University	VM	No	No
Barry Abramson	Servidyne	VM	No	No
Rhys Davis	Resource Refocus	PCM	Yes	No
Penny Cole	Introba	PCM	No	No
Nathan Lima	NIST	Guest	No	No
Yeonjin Bae	ORNL	CM	No	No
Kartik Tiwari	CloudKitchens	PCM	Yes	No
Curtis Fong	Taylor Engineers	CM	Yes	No
Maruti Anumalapalli	JB&B	PCM	No	No
Mike Saunders	Copeland	Guest	No	No
Emma Van Fossen	Trane Technologies	PCM	Yes	No
Frank Li	ORNL	Guest	No	No
Kevwe Andrew Ejenakevwe	University of Oklahoma	CM	Yes	No
Oumou Sidibe	Johnson controls (JCI)	PCM	yes	no
Josh Dean	California Energy Alliance	PCM	No	No
J Patrick Carpenter	Facility Performance Engineers	VM	No	No
Fred Goldner	Energy Management and Research Associates	VM	No	No

Adam Hinge	Sustainable Energy Partnerships	CM	No	No
David Eldridge	GBA	VM	No	No
Kelly Majewski	JLL	CM	Yes	No
Hyojin Kim	NJIT	VM	No	No
Piljae Im	ORNL	Guest	No	No
Chonghui (CL) Liu	Arcadis	VM	No	No
Alexander Zhivov	ERAC	CM	No	No
Eric Yang	Vantage DC	CM	No	No
Kajen Ethierveerasingham	Enerlife Consulting	PCM	Yes	
Scott West	HFA	VM	No	
Xiaoqi Liu	University of Nebraska Lincoln	PCM	Yes	
Jamie Fine	RWDI	PCM	Yes	
Ruben Abreu	Walker Reid	CM	No	
Jett Roeser	Center for Energy and Environment	PCM	Yes	
Coral Pais	DLR Group	Guest	Yes	
Orvil Dillenbeck	CN	Guest	No	
Andrew Windham	Appalachian State University	Guest	No	
Steven Carlson	XRG Analytics	CM	No	
Mazen Daher	EPRI	Guest	No	
Joe Hofstetter	Karpinski Engineering	VM	No	
Chris Lee	Adaptis AI	Guest	Yes	
Jean-Simon Venne	Brainbox AI	Guest	No	
Supriya Goel	PNNL	Guest	No	
Nick Armstrong	IMEG Corp.	Guest	No	
Cindy Bittel	DMI Companies	CM	No	
Ali Shirazi	ATI / WMS	CM	No	
John Constantinide	U.S. Space Force	CM	No	
Tae Kwon	AHRI	Guest	No	
Dennis Landsberg	L+S Energy	CM	No	
Cindy Wong	GBA	Guest	No	
Michael Rubino	GBA	Guest	No	
Xiaohui Zhou	Slipstream	CM	No	

1. Roll call and Introductions

Smith

- Welcome new members and guests
 - Meeting called to order at 1:08pm
 - Quorum Established: 12 VM
 - Total attendees: 54, 14 YEA, 37 In Person, 17 Remote
- Sign In https://docs.google.com/spreadsheets/d/1ayUC417VfQ-sEGq7oG_tjvqxMjxYWj6K/edit?usp=sharing&oid=107540069336949830568&rtpof=true&sd=true

- Agenda is on basecamp and on TC 7.6 website:
 - <https://tpc.ashrae.org/?cmtKey=a3c4df83-1642-4424-a669-789bd78fb174> .

2. ASHRAE Code of Ethics Commitment

Smith

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. Approve minutes of June Hybrid meeting in Tampa

Smith

- **Motion #1:** It was moved (Smith) and Seconded (Reinders) that the minutes of TC 7.6 meeting from June 2023 be approved as drafted.
- **Motion #1 Passed:** CNV

4. Announcements and Chair Remarks

- Chair Remarks Smith
 - Update on Chair's emphasis – plans for future
 - Decarbonization: alignment of TC 7.6 work with Decarbonization Task Force efforts
 - Completion of the updates to Green Book through Audits subcommittee
- Announcements Smith
 - Basecamp and emails to roster used for communication/announcements.
 - Basecamp for TC 7.6 and Subcommittee Basecamps
 - Honors & Awards nomination information can be found at: <https://www.ashrae.org/membership/honors-and-awards>

5. Membership

Webb

- Currently 366 members on the roster.
- Roster access by TC members (log into My Membership on ASHRAE website).
- Make sure to email Webb or Smith ASAP about upgrading your membership, since roster updates will occur soon.
- Currently 13 VMs
- Rolling off 6/30/2024: Annie Smith, Paul Mathew, J Patrick Carpenter, David Eldridge, Chonghui Liu (CL), Nicholas Long, Charles Hofstetter (Joe)
- Rolling on 7/1/2024: TBD

6. Standing Committee Liaison Reports (TAC/RAC/StdCom/Program/SpecPub/ALI/BuildingEQ)

- TAC Section Head (Satheesh) Kulankara
 - TC 7.6 has a new section head
- Task Force for Building Decarbonization (TFBD) Hinge
 - The TFBD will be transitioning to become the Center for Building Decarbonization
- SSPC 189.1 Liaison (Katherine Hammack, Chair) West
 - Scott West has rolled off 189.1, TC7.6 needs a new liaison to this committee.

7. Multi-Disciplinary Task Group Reports

- BuildingEQ Deru
 - Update provided by Constantinide – BEQ is aligned with Std 211
 - Green building initiative incorporated BEQ into two of their rating systems.

8. Subcommittee Reports

A. Standing (Functional) Subcommittees

8.1 Research

Kim

- 19 Attendees
- Reviewed ASHRAE Research process
- Reviewed recently completed sponsored projects
- TC 7.6 has one active research project

8.2 Handbook

Shirazi

- 6 Attendees
- Two Chapters in Applications Handbook recently published
- One schedule for the next cycle of updates
- Looking for volunteers to assist with the handbook chapter review
- Handbook subcommittee will meet virtually before the Annual Meeting this June
- Deadline is 2026 for updated chapters

8.3 Standards

Liu

- Std 90.1 - 2022 (SSPC 90.1 Liaison: Lui)
 - Continuous maintenance
 - Working toward zero energy and decarbonization over the next decade
- Std 90.2 - 2018 (SSPC 90.2 Liaison: need a liaison) (need liaison)
 - Continuous maintenance
 - *Liaison requested from the SSPC 90.2 Chair.*

- Std 100 – 2024 (SSPC 100 Liaison: Landsberg) Landsberg
 - Continuous maintenance
 - Recently published before this meeting
 - There is a podcast on this update and an ASHRAE journal article

- Std 105 – 2021 Carpenter
 - Continuous maintenance
 - Committee needing to be formed for the next update

- Std 211 – 2023 (SSPC 211 Chair: Eldridge) Eldridge
 - Reconstituting
 - Met informally at this meeting
 - Open to revise title purpose and scope
 - Reach out to David Eldridge if you are interested in joining the committee
 - Looking at submitting a forum for Indianapolis

- Std. 214 – 2017 (reaffirmed at June 2022 meeting) Liu
 - *Volunteers reviewing comments received during public review process.*

- Std. 228 – 2023 Landsberg
 - Standard Method Of Evaluating Zero Net Energy And Zero Net Carbon Building Performance
 - In continuous maintenance now
 - Article published on the standard

- Guideline 14 – 2014 (SGPC 14) Landsberg
 - In Continuous Maintenance
 - Looking for volunteers to join for next round of updates

- Guideline 34 – 2019 Webb
 - Not currently in continuous maintenance
 - Action Item – Smith to determine if this needs to be re-affirmed at the Annual Meeting

- Proposed Guideline 45P (GPC 45) Kim

- Authorized July 2021
- Large committee established
- Very rough draft created and being reviewed by the committee
- Timeline of remaining work established
- The deadline for a complete draft is June 2024

8.4 Programs

Reinders-Caron

- 9 Attendees
- 3 sponsored programs, 1 co-sponsored program
- 2 programs not selected will be re-submitted
- 1 livestream session tomorrow (Wednesday)
- This conference held 124 total sessions

8.5 Website

Bae

- Send your agendas and minutes to Bae if not already on Basecamp.

B. Topical Subcommittees

8.6 Monitoring & Energy Performance

Webb

- New BPS were adopted by Cambridge, MA and Seattle, WA
- The White House is looking for feedback on the definition of Zero Emission Buildings
- CBECS is developing a subset of all electric buildings

8.7 Energy Management

Yang

- TC 2.8 Water-Energy Nexus Subcommittee Liaison
- 24 Attendees
- Subcommittee meets monthly to keep energy management updates current
- ALI Course held on Saturday – had 30 attendees
- Working on a program regarding Energy Management Case Studies
- Developing a program looking at how Artificial Intelligence can help Energy Management

Yang

8.8 Commercial Building Energy Audits

Hofstetter

- 16 Attendees
- Commercial Building Energy Audit Publication available in the Bookstore
- Out of date information
- Standard 211 will be the new updates, the book is more of a “how to” guide
- PTAR (Publication Topic Acceptance Request) submitted
- **Motion #2:** It was moved (Hofstetter) and Seconded (Fred Goldner) that the PTAR be approved as drafted
 - Barry proposed revision seconded by Goldner
 - Revisions to PTAR passed
- **Motion #2 Passed as Revised:** Chair voted, CL Absent

8.9 Federal Buildings

Zhivov

- 6 Attendees
- Discussion regarding deep energy retrofits in existing buildings
- Examining revising the title purpose and scope of this subcommittee
- Subcommittee will meet to discuss and review updates

8.10 Building Data Exchange

Long

- 42 Attendees
- Minutes will be posted to basecamp

- Std 232 will be out for public review soon
- Std 229P has a schema attached will be out for public review soon
- New Standard on building data assessment schema may be an annex to 211

9. Other Topics

- None

10. Old Business

- *Position Document on Energy Efficiency in Buildings*
 - Approved and sent to Tech Council for approval

Hinge/ Kelsey

11. New Business

- None

12. Adjourn

- Meeting adjourned by Smith at 2:59pm.