

Meeting Minutes

TC 7.06 Building Data Exchange Subcommittee

Tuesday, June 25, 2024, 10:00 – 12:00 EDT

JW Marriott, 306 (3)

ASHRAE Code of Ethics Commitment

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](#).)

Attendees

25 people in attendance (in person and virtually)

Name	Affiliation	Email	Member (VM, NVM, CM, or Guest)	YEA	Int'l	In-Person / Virtual
Nicholas Long	NREL	nicholas.long@nrel.gov	VM	No	No	IP
Mark Borkum	Pacific Northwest National Laboratory	mark.borkum@pnnl.gov	Guest	No	No	V
Thibault Marzullo	National Renewable Energy Laboratory	thibault.marzullo@nrel.gov	PCM	Yes	No	V
James McNeill	Edo	jamesmcn@edoenergy.com	CM	No	No	IP
Stephen Roth	Carmel	stephenroth@gmail.com	CM	No	No	IP
Supriya Goel	PNNL	supriya.goel@pnnl.gov	CM	No	No	IP
Andrew Held	DOEE	aheld823@gmail.com	Guest	No	No	V
Niraj Kunwar	Oak Ridge National Laboratory	kunwarn1@ornl.gov	CM	Yes	No	IP
Jason DeGraw	ORNL	jason.degraw@gmail.com	CM	No	No	V
Yunyang Ye	The University of Alabama	yunyang.ye@ua.edu	CM	Yes	No	IP
Sagar Rao	NeuMod Labs	sagar.rao@neumodlabs.com	Guest	No	No	IP
Fengqi Li	ORNL	frankdesignx@gmail.com	Guest	Yes	No	V
Lauren Adams	NREL	lauren.adams@nrel.gov	CM	No	No	V
Omar Hamad	CUNY BPL	ohamad@ccny.cuny.edu	Guest	No	No	V

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Name	Affiliation	Email	Member (VM, NVM, CM, or Guest)	YEA	Int'l	In- Person / Virtual
Chris Balbach	PSD	cbalbach@pasconsulting.com	Guest	No	No	IP
Jie Xiong	NREL	jie.xiong@nrel.gov	CM	No	No	V
Justin Mezzadri	Automated Logic	justin.mezzadri@carrier.com	Guest	No	No	V
Mahabir Bhandari	Oak Ridge National Laboratory	bhnadarims@ornl.gov	CM	No	No	V
David Eldridge	Grumman Butkus Associates	DEldridge@grummanbutkus.com	VM	No	No	V
Amanda Webb	University of Cincinnati	amanda.webb@uc.edu	VM	No	No	IP
Scott Duncan	Georgia Tech	duncan@gatech.edu	Guest	No	No	IP
Joel Bender	Cornell University	jib5@cornell.edu	Guest	No	No	V
Annie Smith	Introba	smithannelise314@gmail.com	VM	No	No	IP
Ron Bernstein	RBCG CONSULTING	ron@rb-cg.com	Guest	No	No	IP
Brittany Wilkins	Carrier	brittany.wilkins@carrier.com	CM	No	No	IP

Minutes

10:00 Introductions

All

Acknowledgment of previous meeting minutes (<http://tc0706.ashraetcs.org/>)

10:10 Announcements and Remarks

Long

10:15 Old Business / Action Items

Long

10:30 Round Table on Building Data Exchange Updates

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Standards and Schema

All

- 229P: Protocols for Evaluating Ruleset Application in Building Performance Models Goel

Standard for evaluating building performance models. Focus on the inputs needed. Working on the workflow from an RPD (an instance of RES) to be passed through BuildingSync and into a BPS tracking software.

- SSPC 205-2023: Representation of Performance Data for HVAC&R and Other Facility Equipment Hitchcock

Adding in more data types. Uses a binary format for data exchange. Focusing on Heat Pumps.

- 232P: Common Content and Specifications for Building Data Schemas Roth

Standard went through peer review, changes/updates were approved by the subcommittee. Will be released soon!

- gbXML Roth

Talking about making gbXML an ANSI standard. Recently added OBXML to gbXML. Over 50 tools are using gbXML. TC 1.5 is the desired cognizant subcommittee for this standard.

- 231P: CDL - A Control Description Language for Building Environmental Control Sequences West

No update.

- BEDES and Mapping Manager Walter

No update.

- HPXML Balbach

Working with BPI2400 for calibration. Follows Guideline 14.

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- BuildingSync

Marzullo

Need version forthcoming. New window retrofit options for measures. Adding in missing occupancy classification. Working with FEMP to improve interoperability including CTS alignment. Aligning with RES from Std229P.

Looking at aligning eProjectBuilder interoperability.

Revolving Loan Fund – commercial building energy audits. Working with States and professions that need to comply with this request.

Trying to better align BuildingSync and HPXML due to the multifamily

Controls & Optimization

All

- Std 223P / BRICK

Pritoni/Bender

Going through public review, responding comment by comment. Mostly editorial questions, not topology questions. New public review in a month or so.

New annex on using RDF for BACnet, making it part of the standard web and SPARCL. Will hopefully address the grand vision

- Haystack

TBD

Design & Construction

All

- IBPSA BDE

Rao

Building performance modeling protocols. The working group is wrapping up the latest version. RFP will be released to have a contractor engage with end users. Trying to figure out the pathway for vendors to report. Connection with RES and RPD.

Consensus document for climatic information was released (version 1). Will be updated soon with additional information. Will be added to Std 169 as an informative. No adoption yet.

- BuildingSync Gem

Marzullo

Future development to be a measure based OpenStudio workflow.

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- City Scale Building Formats

Bobker

Campus or city level. Community energy modeling. CityBES tool, MIT lab, and other DES energy tool models. At a district level, data are more than just energy. Aggregating building types, open space modeling, transportation, local travel, trees, traffic, etc.

Interest of aggregate heat pump modeling to understand utility congestion. How to deal with utility systems that are connected. EDO – working with utility distribution level data. Meter point ID (service point) connected to feeders and substations. No data formats (known) around this type of data. Urban data formats would be useful, with focus on PII.

Difficult mapping tax parcel, to service point ID, to ... utilizing disparate datasets is not cost effective. Focus on techniques on mapping.

PII – keys and encryption. Need to layer multiple datasets.

There are methods to manage all of this. Have one source that all refer to. Everyone should use the same name or the same ID.

Public Agency Programs, Organizational
Updates, Compliance, and Reporting

All

- DOE Updates

TBD

- ASHRAE Building EQ

Roth

Discussion on budget cut, which is planned. Requesting minimal budget to address decarb and standard 211 (now SSPC211). Building EQ wants to add decarb assessment and update with 242P.

Uses BuildingSync for level 1 audits. Look at the meeting notes for the total numbers.

- Asset Score / QBAT

Goel

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No data exchange component, but really modified to be QBAT (quick building asset tool?). Requested by DOE to make it easy for a lay person to enter the data and get an assessment. Used for the schools grant. They are looking to add an API.

Not recommended for a detailed energy analysis. The models are informative, screening-style analysis. Limited in the value that can come out of this. QBAT to BETTER?

- Audit Template Borkum

Structured data collection platform... implements standard 211. Used by multiple jurisdiction. Latest milestone, passed 1 billion sqft! Working on interconnection with ESPM, Cambium. Would nice to have a service. Would like to push meter consumption data from AT to ESPM, and even further, they would like to push an entire building.

- UBID Borkum

Unique Building ID, give a name of something in space/map. Has implementation in 6 different languages. New users include state of new jersey, EPA is planning on adding UBID capabilities to their tool. No need to get their city id blessed.

- Home Energy Score Balbach

Asset score for homes or units in MF. Value between 1 and 10. Uses HPXML, and the file can be complex (100's of walls, hvac), and HES simplifies and returns the value. Anyone that has HPXML can use it now.

Allows kitchen table conversations. Most of the focus in on the utility incentive pathways. To generate an official energy score requires credentials on how the data are collected.

- CTS / FEMP Brauch

Working on US Army CERL to customize the workflow to be exportable to CTS. Facility level aggregations such as energy costs, savings, and counts of retrofit measures. SEED into CTS.

- SEED Platform Long

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BETTER

11:30 New Business

BuildingSync Data Standard / Guideline
Updates to data.ashrae.org

Marzullo / Long

Still determining if this should be a new standard or appendix. Working with SCEP and shown that there are inconsistent format, and it is difficult to combine reports in larger portfolios. There is a request around doing analytics at scale. Every mapping of data introduces reliability in the data. Accountability in audit reporting needs to happen.

Still want to pursue the process for data exchange format and aligned with standard 211. There has been a multiplication of standards.

Use BuildingSync the initial draft and let the committee take it the direction it needs to handle benchmarking, BPS, and audits.

What is the overall workflow and lifecycle from building conception to occupancy to building BPS? At a minimum making sure we cover standard 211 due to audits. BuildingSync has evolved to cover multiple use cases, e.g., eProjectBuilder, which includes life cycle data. How much do we want to standardize with the file.

New Action Items

Item	Owner	Due Date	Status
Paper writing on building data exchange	Long	3/15/2024	On-going
Add City Scale Building Formats to next agenda, find someone to discuss	Long	4/30/2024	Discussed and added to agenda
Discussion UBID and CBECS	Webb	3/31/2024	Webb will email.

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Item	Owner	Due Date	Status
Standard 231 and BDE to discuss how the effort can benefit from 232P, 229P, RES, etc.	West, Long	5/15/2024	Continuing
Direction on Standard on Building Data Exchange for Audit Data	Long, Marzullo	02/15/2024	Continuing

12:02 Adjourned