Residential Buildings Committee Friday, October 29, 2021 Fall Web Meeting

ATTENDANCE

13 Voting Members: Quorum = 7

Voting Members:		Ex-Officio Members:	
Richard Karg – Chair (2022)	Х	Adrienne Thomle – Board Ex-O	Х
Bill Healy – Vice-Chair (2022)	Х	Tim McGinn – CO	Х
Mike Blanford (2024)	Х	Lilas Pratt – Staff Liaison	Х
Roy Crawford (2022)	Х		
Wes Davis (2022)	Х	Guests:	
Steve Emmerich (2024)	Х	Stephanie Reiniche	Х
Pat Graef (2022)	Х		
Mark Lawrence (2023)	Х		
Carol Marriott (2024)	Х		
Bjarne Olesen (2023)	Х		
Rachel Romero (2024)	Х		
Steve Saunders (2023)			
Chandra Sekhar (2024)	Х		

PRINCIPAL MOTIONS¹

Motion #1: Bill Healy moved, and Pat Graef seconded that the June 21, 2021 meeting minutes be approved.

Vote: Motion passed 10-0-0, CNV

Motion #2: Mark Lawrence moved, and Pat Graef seconded that the topic, outline, and working group members for the ventilation and IAQ in bedrooms RIB be approved.

Vote: Motion passed 11-0-0, CNV

NEW & OPEN ACTION ITEMS

October 29, 2021 RBC Fall Web Meeting			
1	Communications Suggest to the RIB working group that they expand the Subcommittee scope from just IAQ to IEQ.		New
		Reach out to GAC leadership to determine who is liaising	Name
2	Lilas Pratt	from GAC to RBC and if they want a liaison from RBC.	New

¹ All votes are recorded as yes-no-abstain.

October 18, 2021 Communications Subcommittee Meeting			
1	Lilas Pratt	Request that ASHRAE Marketing create an "ad" on the RBC webpage to be provided to willing stakeholders to put on their web pages	On-going

September 16, 2021 Communications Subcommittee Meeting			
2	Lilas Pratt	Update RBC webpage with link to the ETF information and	On-going
	add IEQ article suggested by Chandra Sekhar	J - U	

June 21, 2021 RBC Virtual Annual Meeting			
2	Bjarne Olesen	Send information on other residential conferences to Lilas Pratt for inclusion on RBC webpage	On-going
3	RBC Members	Send information to Lilas Pratt for inclusion on the RBC webpage as it is available and noted	On-going

MEETING NOTES

1. Call to Order – Meeting convened at 10:03am EDT. Quorum was established.

2. Review of Agenda

- Rick Karg opened the meeting by pointing out the committee's <u>Scope and Purpose</u> as detailed in the ROB.
- He also pointed out the Acronym List for reference by the committee.
- There were no changes to the agenda.

3. Review of Action Items

- Several action items were closed as they were no longer relevant.
- It was noted that the Reference Manual section on TC liaisons will need to be updated to match current policy on that issue.

4. Report from BOD Ex-Officio

- Adrienne Thomle noted that she is very pleased with how the committee is operating this year. There is great documentation and engagement within the subcommittees.
 The new members are stepping up and hopefully learning from the more experienced members.
- She also thanked Pat Graef for her mentorship and knowledge of ASHRAE rules and procedures.
- Tim McGinn echoed these comments and commented on how important residential issues are within the Society. Two specifics he mentioned were a residential focused Society Annual meeting and a Residential Handbook.

5. Approval of meeting minutes

June 21, 2021 Virtual Annual Meeting (File: 06-21-21 AM RBC MtqMinutes Draft.pdf)

Motion #1: Bill Healy moved, and Pat Graef seconded that the June 21, 2021 meeting minutes be approved.

Discussion/Corrections: None. **Vote:** Motion passed 10-0-0, CNV

- 6. Process Subcommittee Update (Healy)
 - a. **P.1A.** Residential Buildings Service Award status update (Attachment 1)
 - The award has been initiated and announced on social media and in Chapter Notes and Insights.
 - Mike Blanford is working on evaluation criteria for submissions.
 - The winner will be announced at the upcoming Winter Conference.
 - b. P.1.B. Buildings Series Conference update
 - Bjarne Olesen and Mike Blanford represent
 - c. **P.1C.** Technical Program offerings for ASHRAE conferences
 - First step has been to brainstorm on potential topics that would be of interest to the residential market. Next step will be to approach relevant
 - d. P.2A Proposal of new residential guidelines or standards (Attachment 2)
 - The guideline that was proposed last SY was approved by Standards Committee at their fall meetings. The RBC will continue to support this effort as it moves forward.
 - The subcommittee will continue to look at new guideline opportunities.
 - e. P.2B. Propose and development/update of residential guidance documents
 - A big piece of this effort is to manage the existing guidance from the ETF and to continue to update that guidance as appropriate.
 - RBC is working with EHC to develop plans to maintain this content. As these plans develop, RBC expects to take the lead on residential content moving forward.
 - New guidance under consideration include a guidance document on the management of wildfire smoke.
 - f. **P.2C.** Proposal of new research projects
 - The intent is to work with relevant TCs on research that would fill in gaps and benefit the residential market.
 - g. **P.3A.** Proposal and development of new residential training offerings
 - The initial need identified was for training on Standard 62.2.
 - Pat Graef has started the process of filling out the proposal form for a 3-hour short course. Once the form is finalized, reviewed by the subcommittee, and approved by the full committee; it will be sent to the Training and Education Committee for their consideration in Las Vegas.
 - Committee approval would likely be done via letter ballot.
 - The proposal process will require several reviewers which will need to be identified, along with a course instructor. Don Stevens has been suggested for the instructor.
 - The last time this course was conducted was in 2008. Don Stevens was instructor at that time.

- 7. Communications Subcommittee Update (Lawrence)
 - a. **C.1A.** RBC webpage content maintenance and update
 - The subcommittee has requested some Google Analytics data. Preliminary information was presented to the committee as shown below. (Attachment 3)
 - Additional information was requested by the subcommittee after an excellent discussion. That will be discussed at the next meeting.
 - Guidelines on what should be posted have also been discussed.
 - A process to get input from website visitors is also being explored.
 - b. C.2A. Development of new Residential Issue Briefs
 - Rick Karg noted that the committee can also pursue Position Documents in addition to RIBs. The difference is explained below (<u>Attachment 4</u>)
 - A new RIB on Ventilation and IAQ in Bedrooms has been proposed by the subcommittee as shown below (Attachment 5).
 - An outline and working group have been proposed for review and approval by the committee. Chandra Sekhar has agreed to lead the working group.

Motion #2: Mark Lawrence moved, and Pat Graef seconded that the topic, outline, and working group members for the ventilation and IAQ in bedrooms RIB be approved.

Discussion:

- There are no specific deadlines for the completion of the work, but a two to three month window would seem to be reasonable.
- Bjarne Olesen mentioned some current research that needs to be referenced in the brief.
- Steve Emmerich suggested that the brief may want to expand the IAQ to IEQ as the other elements included (acoustics, lighting, etc) are also important elements. The working group will take this suggestion under consideration.
- It will be important to make sure that EHC has some opportunity to review the final brief before it is approved and posted as this overlaps somewhat with their scope.
- This is just one area where RBC should continue to work more closely with EHC.

Vote: Motion passed 11-0-0, CNV

- c. **C.2B.** Status of Residential Buildings Journal column/articles (<u>Attachment 6</u>)
 - The subcommittee has a list of authors and topics as shown below and is always looking for additional volunteers.
 - The column is intended to be a quarterly column.
- d. **C.3A.** Proposal and develop of residential virtual seminars
 - The subcommittee has brainstormed ideas for potential seminars and webinars. These will be discussed in future meetings.
- e. **C.3B.** Promotion of residential DL presentations (<u>Attachment 7</u>)
 - The subcommittee would like to work with CTTC to promote the current DLs that speak on residential topics. This will be discussed in future subcommittee meetings.
- f. C.3C. Nomination of additional residential DL's
 - Deadline for new DL nominations is December 1.
 - The subcommittee will try again to get a DL on Standard 62.2 nominated and approved.

- The new multifamily AEDG should also result in new topic listings for several existing DLs that already speak on the AEDGs.
- 8. Review of Brainstorming Spreadsheet (File: RBC_TopicsActivitiesMatrix_29Oct2021.xlsx)
 - Both subcommittees spent time at their last meetings brainstorming on topics and issues that are important to the residential market.
 - These ideas have been put into a spreadsheet matrix with potential applications.
 - This matrix will be used by both subcommittees moving forward to prioritize ideas and activities.
- 9. Review of RBC MBOs (File: 29Oct2021_RBC_21-22_MBOs.xlsx)
 - The most recent updates are shown in the referenced Excel spreadsheet. Note that progress is being made in all areas.
 - This information will be reported to Technology Council Operations Subcommittee.

10. RBC Liaisons

- a. Epidemic Task Force Update (Karg)
 - Rick Karg continues to work with EHC on how to handle the residential content
- b. GAC Liaison Assignment
 - The committee needs to determine who is liaising to/from GAC this year.
- c. Residential Standards and Technical Committees
 - SSPC 62.2 The committee will want to liaise with this committee in regard to the proposed training short course on Standard 62.2 and any DL nominations for speaking on the standard.
 - SSPC 90.2 Wes Davis will provide feedback to/from Standard 90.2 moving forward. Theresa Weston was approved last SY as a DL speaking on this standard.
 - Standard 15.2P proposed standard on refrigerant safety in residential buildings. Mike Blanford and Roy Crawford both serve on this effort which is current a subcommittee under SSPC 15.
 - Decarbonization Task Force this would be a good effort for this committee to keep an eye on. Current efforts are fairly general with nothing very specific on residential.

11. Upcoming Meetings (TBD)

- Doodle poll out for November subcommittee meetings, please respond
- Las Vegas Winter Meetings:
 - Communication Subcommittee Tuesday, January 18, 10am-11:30am EST
 - Process Subcommittee Wednesday, January 19, 10am-11:30am EST
 - RBC Main Meeting Friday, January 21, 10am-12pm EST

12. Adjourn – Meeting adjourned at 11:29am EDT

Residential Building Committee (RBC) Scope and Purpose from the Rules of the Board (ROB)

2.423.001 SCOPE AND PURPOSE

This committee shall be responsible for identifying major residential trends impacting the practice of HVAC&R, informing the ASHRAE leadership and membership of these trends and their potential impacts, and making recommendations on new activities and policies in response to these trends. In addition, this committee shall serve as a resource to the Society on activities and issues that relate to residential impacts of building technologies including but not limited to ventilation, and thermal organizations that focus on residential buildings. The committee will be responsible for implementation of the residential aspects of the Strategic Plan.

Acronym List

AHRI – Air-conditioning, Heating and Refrigeration Institute

AIA - American Institute of Architects

ALI - ASHRAE Learning Institute

BPI - Building Performance Institute

CEE - Consortium for Energy Efficiency

CM – Corresponding Member of TC

CTTC - Chapter Technology Transfer Committee

DL - Distinguished Lecturer

DOE – US Department of Energy

ETF - Epidemic Task Force

GAC - Government Affairs Committee

HUD - US Department of Housing and Urban Development

ICC - International Code Council

MBO - Management by Objective

MTG – Multi-disciplinary Task Group

NAHB - National Association of Home Builders

NARI - National Association of the Remodeling Industry

PCM – Provisional Corresponding Member of TC

PPIS – Planning, Policy and Interpretations Subcommittee (under Standards Committee)

RESNET – Residential Energy Services Network

RBC – Residential Building Committee

RP – Research Project

RTAR – Research Topic Acceptance Request

SPC – Standard Project Committee

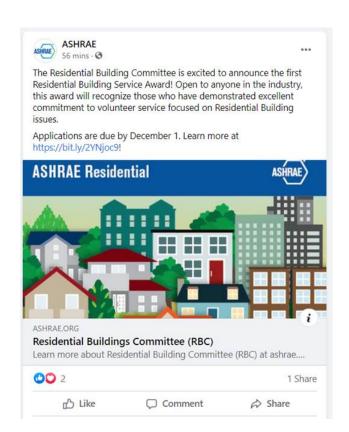
SSPC – Standing Standard Project Committee

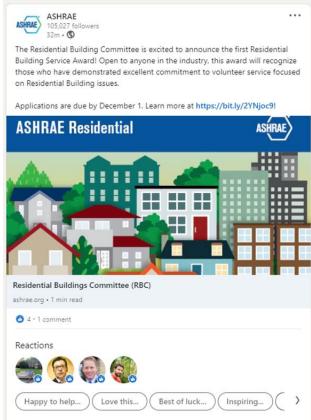
TC - Technical Committee

TPS - Title, Purpose, Scope

VM – Voting Member

Attachment 1 - Residential Building Service Award Social Media Posts





https://www.facebook.com/ASHRAEupdates https://www.linkedin.com/company/ashrae/posts/?feedView=all

From October 29 Chapter Notes:

The Residential Buildings Committee has a new award

The Residential Buildings Committee (RBC) is pleased to announce the initiation of the Residential Buildings Service Award. This award recognizes excellence in volunteer service focused on Residential Building issues and is open to both ASHRAE members and non-members. Judging is based on points awarded for achievement in ASHRAE activities related to the residential building sector and the quality of that work. The deadline for submissions is December 1, 2021 and the inaugural winner will be awarded during the RBC meeting at the ASHRAE Winter Conference. More information and the nomination forms available on the Residential Buildings Committee web page

More Information

Attachment 2 – Standards Committee Approval of Residential Guideline

Standards committee just approved "Design and Construction Practices for Controlling Humidity in Residential Buildings".

Comments:

This TPS will also have to be approved by the Board. This TPS was originally submitted by Steve Saunders for consideration at the Summer meeting and was returned to the sender to answer additional questions posed by PPIS. Mr. Saunders provided a response to those questions and resubmitted the TPS for consideration at the Fall PPIS meeting. Phil Agee was recommended as the Chair of the proposed new project committee. TC 1.12, *Moisture Management in Buildings* will be assigned the Lead Cognizant TC and Residential Building Committee (RBC) will serve as co-cognizant committee. There are at least five members willing to volunteer.

Attachment 3 - RBC Webpage Google Analytics

From: Ratcliff, Joslyn

Sent: Friday, October 15, 2021 5:02 PM

To: Pratt, Lilas

Subject: RE: RBC web page - Google Analytics

Since July 1, the page has had 153 total pageviews from 8 countries (top countries are US with 124 pageviews, India with 15, followed by Canada with 4). (In terms of just pageviews, this number ranks it in among the 750 most visited pages on the site.)

The average time users spend on the page is 2 minutes and 25 seconds, which is about 51 seconds longer than the average visit to the site.

Below is a trendline showing when the pageviews occurred:



Let me know if you have other questions or think there's different or more data that they'd be looking for.

Attachment 4 – Briefs and Position Document Definition

From Technology Council Manual of Operations (MOP)

1.1 Position Documents are intended to communicate explicit ASHRAE positions on subjects, ideally by referencing other ASHRAE documents and Standards. They are intended for use by ASHRAE Washington Staff and Advocacy Committee to provide information and to give background for

public policy decisions and may also be used by ASHRAE membership to provide input as appropriate on local issues.

- 1.2 Position Documents are statements of established ASHRAE positions on matters of interest. They should be narrow enough in scope so that the Document's length will not exceed 10 pages and a new document can be completed for publication within 12 months unless the Position Document Committee Chair has received approval from the Technology Council for an extension. Requests for extension are to be supported by justification and submitted by the Position Document Committee Chair to the Technology Council Chair preceding the 12 month completion deadline. A revision to an existing Position Document should be completed within 6 months.
- 1.3 It is ASHRAE's goal to have a Position Document available before significant legislation is passed or regulations promulgated regarding issues that will affect ASHRAE, its members and constituencies.

From Environmental Health Committee Reference Manual Emerging Issues Briefs:

These are one- or two-page description of issues that are the forefront of concern for the EHC. They do not get approved by the Tech Council Document Review Subcommittee. They are reported to Tech Council but are only housed on the EHC website.

Attachment 5 - Proposed Ventilation and IAQ in Bedrooms Issue Brief

RIB Working Group Members

- Chandra Sekhar, Ph.D. National University of Singapore, member of RBC Working Group leader
- Gaelle Guyot, Ph.D., Cerema, France
- Pawel Wargocki, Ph.D., University of Denmark
- Paul Raymer, Heyoka Solutions, member of ASHRAE 62.2 committee, U.S.A.
- Jelle Laverge, Ph.D., Ghent University, Belgium
- Rick Karg, Residential Energy Dynamics, RBC chair, member of ASHRAE 62.2 committee, U.S.A.
- Wei Ye, Ph.D., Associate Professor School of Mechanical Engineering, Tongji University

Overview of Residential Issue Brief

Residential Issue Briefs (RIBs) are authored by an ad hoc working group assembled by the Residential Buildings Committee for a specific topic identified by the RBC membership.

The RBC Reference Manual, October 2021, states:

Residential Issue Briefs are short, concise documents that describe a current issue of interest to the residential sector. These issues often come up quickly and must be responded to quickly.

The ASHRAE Rules of the Board includes relevant language for this RBC activity, October 2021, states:

This committee [RBC] shall be responsible for identifying major residential trends impacting the practice of HVAC&R, informing the ASHRAE leadership and membership of these trends and their potential impacts, and making recommendations on new activities and policies in response to these trends. In addition, this committee shall serve as a resource to the Society on activities and issues that relate to residential impacts of building technologies including but not limited to ventilation, and thermal organizations that focus on residential buildings. The committee will be responsible for implementation of the residential aspects of the Strategic Plan.

Guidance for Residential Issue Brief Process

- Develop outline for RIB
 - o General outline
 - The issue (one to two pages as final)
 - What does this mean for ASHRAE? (one to two paragraphs as final)
 - The role of ASHRAE (one page as final)
 - References
 - Contributors, with affiliations
- Determine who on working group will write drafts for different sections.
- The document should not include guidance, but may include recommendations to ASHRAE for using resources for solving the problems/issues stated in the RIB. For example, what new ASHRAE research, standards, design guide, etc. will contribute to the solution?
- Avoid political and policy issues or statements; there are other venues for this within the ASHRAE organization.
- RIBs are not limited to HVAC&R discussions, as the ASHRAE mission also includes "allied fields" of HVAC&R. Other building performance issues within the scope of ASHRAE activities may also be addressed.
- RIBs are approved by the members of the RBC, but not by any other ASHRAE committee or group.
 Approved RIBs are forwarded to the Technical Council and posted on the RBC webpage on the ASHRAE website.

Attachment 6 - ASHRAE Journal Information

These columns/articles are intended to (a) educate ASHRAE members on key issues involving the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields as they pertain to the residential sector, and (b) inform ASHRAE members of the role that ASHRAE and its members play in advancing the state of the residential building industry.

Journal Column Parameters:

- Length is 1,500-2,000 words
- Reviewed by the Residential Building Committee.
- There is no further peer review.

Journal Article Parameters:

- Length is 3000 words
- Reviewed by the Residential Building Committee
- Sent out for a peer review by Journal staff prior to publication.

Process:

- Residential Building Committee (RBC) identifies topics of interest. The Journal Coordinator reaches out to potential authors.
- Authors submit initial draft. A Word version of manuscript is submitted to the RBC through the Journal Coordinator. Graphics, if any, should be included with the manuscript. However, there is no specific graphic format requirement for this draft.
- Residential Building Committee draft review. The Journal coordinator circulates the manuscript to Residential Building Committee members requesting comment and asking whether there would be any objections to publication in ASHRAE Journal. Any Committee comments are provided to the author by the Journal Coordinator.

- Authors submit final draft. If necessary, the author will make changes to the article based on comments received from the Journal Coordinator and resubmit draft.
- Upon approval of RBC, the Journal Coordinator sends message to ASHRAE Journal editor indicating approval of manuscript and asking editor to coordinate with author. For submittal, ASHRAE Journal requests a Word version of the text. Graphics shall be sent as separate files. ASHRAE prefers 300 dpi .jpg or .tif files on photos, or original Excel files if graphics were created in Excel.

Timing:

- The finished column is due to ASHRAE during the last week of the 2nd month prior to the issue being published.
- For example, to be published in the March issue, the finished column would be due to ASHRAE by the last week of January.
- This column should have cleared all reviews from RBC.
- For adequate time for RBC review, it is suggested that authors get draft manuscripts to the Journal Coordinator by the start of the month.
- The manuscript is sent to RBC members with a request for review by the middle of the month.
- Articles will require a longer lead time due to the need for peer review. Plan on 6 months.

Residential Focused Articles/Columns Proposed Topics:

• **Goal:** Inform members of role that ASHRAE and its members play in advancing the state of the residential building industry.

Topic	Potential Authors	Follow up Action
Triple-Pane Windows Offer an	Katie Cort, Edward Louie,	None: under review by ASHRAE
Attractive Tradeoff for Meeting the	and Robert Hart	
2021 IECC Envelope Requirements		
Humidity Control in Residences	Andy Ask	Bill: Provide feedback to Andy
Electrification in the Residential	Dave Roberts, John Winkler	Follow up on status
Sector: Air-Source Heat Pumps		
Multifamily Design Guide	Sean Denniston et al.	Pat Graef: Coordinate with
		potential author
Ventilation and IAQ	Mark Lawrence	Mark: draft manuscript
Heating and Cooling Challenges in	Glenn Hourahan	Glenn: Begin drafting column
Low Load Homes		
Advanced Energy Design Guide for	Paul Torcellini	Bill: Check with Paul T. when
Multifamily Buildings (when		AEDG is finalized.
available)		
Electrification in the Residential	Sean Armstrong	Bill: Keep pinging Sean
Sector		
What does resilience mean in terms		Mike: coordinate with HIRL
of residential building (energy and		researchers
IEQ) performance?		
Ventilation and IAQ in Multifamily		
Buildings		
Air Filtration Approaches for	Barney Burroughs, Jeff Siegel,	
Residential Dwellings	Brent Stephens	

^{**} Items above the bold line: manuscripts have either been submitted to ASHRAE Journal, or abstracts/drafts have been submitted to RBC.

Attachment 7 - Promoting Residential Content through CTTC

From: Pratt, Lilas

Sent: Thursday, September 23, 2021 11:26 AM

To: 'Mark Lawrence'

Subject: RE: RBC Communications SubC 9/16 Meeting - Quick Notes

Here is my suggestion: The committee should write several paragraphs outlining the message that they want to send to Chapter Program Chairs before they reach out to CTTC. If you reach out to CTTC without that, they are just going to ask you what it is you want to tell the chapters. Better to have that in hand first. Your message can go on ASHRAE letter head and be sent out in the form of a letter. I would highlight all of the existing residential DL presentations including the one Chandra just had approved, the one on 90.1, and the one that Chris Mathis does (there may be others, we will have to look at the list).

And, yes, the DL presentation (ASHRAE's in the House) that Chris Mathis does need to be updated – it has not been given in several years and it is VERY out of date. That probably needs to be updated before you tell the chapters that it is available for their chapter programs. I have attached the latest copy for your review (it is later version than the one that Mark attached to his email) and below are the comments Chris Mathis made when he sent it to me earlier this year. This version also has comments from me on some of the slides. Note: I would eliminate the information on the Residential Ad hoc – that is 6 year old information now. Instead the RBC slides should focus on all the things that RBC is currently doing and on how people can get more involved in residential work at ASHRAE (like the RBC listserve, TCs that have residential impact, etc).

- *Here is my last version with various data slides that need updating (in my opinion).*
- This template BROADLY addresses ASHRAE and Residential Buildings.
- The HISTORY section is less relevant today, though certainly still informative
- MORE focus should be on current RBC initiatives and how they MESH with other ASHRAE initiatives (net zero, resilient, COVID, 62.2, 90.2, etc.)
- Separate, focused presentations on 62.2 and 90.2 should be prioritized (in my opinion).
- *GAC* should be prioritized as an internal customer (in my opinion)
- MARKETING should be engaged to foster greater demand for RBC content (this and others we discussed)
- *I hope this helps your efforts.*
- Please let me know how I might further assist.

МВО	Description	Comments/Activities supporting MBO
#	Description	comments, Activities supporting MDO
1	Engage members having residential-buildings interest and encourage new ASHRAE membership from the residential sector.	C.1A. Maintain and update content on RBC webpage, including additional resources, videos, podcasts, etc. Lead: Rachel Romero Priority: Ongoing
		P.1A. Finalize submission documents and promote the Achievements in Residential Award. Review entries and select award recipient. Lead: Mike Blanford Priority: Ongoing
		P.1B. Support Conferences and Exposition Committee (CEC) efforts to develop, promote, and communicate the Buildings Conference in December 22. Lead: Bjarne Olesen Priority: Ongoing
		P.1C. Work with appropriate Technical Committees (TCs) to propose and develop Technical Program offerings for ASHRAE conferences Lead: Bill Healy Priority: Intermediate
2	Identify and address gaps and needed updates in ASHRAE residential information and resources	C.2A. Develop Residential Issue Briefs as issues are identified. Lead: Rick Karg Priority: Ongoing
		C.2B. Manage the production of the Residential Buildings Column and publication of residential articles in the ASHRAE Journal Lead: Bill Healy/Mark Lawrence Priority: High – next column due in Qtr 4 2021
		P.2A Work with appropriate TCs to propose the development of new residential guidelines or standards as needed. Lead: Steve Saunders Priority: Intermediate
		P.2B. Work with appropriate ASHRAE committees to propose and develop/update residential guidance documents as needed (including maintenance of existing ETF guidance and coordination of new guidance). Lead: Steve Emmerich

		Priority: Intermediate
		P.2C. Work with appropriate TCs to propose new research projects as needed. Lead: Roy Crawford Priority: Intermediate
3	Collaborate with appropriate ASHRAE committees to develop residential training resources	C.3A. Work with CTTC to propose and develop residential virtual seminars Lead: Carol Marriott Priority: Intermediate
		C.3B. Work with CTTC to promote DL's residential presentations Lead: Mark Lawrence Priority: Intermediate
		C.3C. Nominate additional residential DL's Lead: Mark Lawrence Priority: High – Submission deadline is Dec 1.
		P.3A. Work with Pub-Ed Training and Education Committee to propose and develop residential training offerings Lead: Pat Graef Priority: Intermediate to Long Term