Research Administration Committee Update

TC Chair Breakfast Meeting – January 2025

Natascha Milesi Ferretti, RAC Chair

Outline

- RAC Objectives and Membership
- Budget update and Activity
- Research Promotion
- ASHRAE Strategic Plan and Research Advisory Panel
- Writing proposals
- Evaluating and Monitoring Projects
- Awards
- Summary

RAC Objectives

- Plan and coordinate research and technical studies in support of the ASHRAE Research Strategic Plan and provide for the dissemination of the results
- Coordinate other activities to promote HVAC&R research
    - New Investigator Award,
    - Homer Addams Award,
    - Graduate Student Grant-in-Aid Program,
    - Innovative Research Grant, and
    - Service to ASHRAE Research Award
- Strategically and ethically administer the Research Fund for the benefit of all ASHRAE members

RAC Membership for SY 24-25

Leadership
Chair: Natascha Milesi Ferretti
Vice-Chair: Jin Wen
RPS Chair: Roland Charneux
RAS Chair: James Bogart

Liaisons	
Section 1: Srinivas Katipamula	Section 6: Matt Mullen
Section 2: Chris Gray	Section 7: A. Chad Kirkwood
Section 3: Zheng O'Neill	Section 8: Carl Huber
Section 4: Dennis Landsberg	Section 9: Conor Murray
Section 5: Douglas Scott	Section 10: WenBin Ng

Budget Update and RAC Activity

Funds are available for ASHRAE RESEARCH,

SY 24-25 $3.9 M, $350K limit for RAC approval

Submit your ideas!

Winter 2025

0 Research Topic Acceptance Requests (RTAR)

5 Work Statements

3 Accepted with comments

2 Returned

8 Projects out for bid

Did You Know??

- ASHRAE currently has 37 active research projects.
- Since 1959, ASHRAE has sponsored 1007 projects for a total cost of about $87.9M
- ASHRAE members have **FREE** access to **ALL** research project final reports
- ASHRAE provides its members with **FREE** digital downloads of all four Handbooks, which are the largest beneficiaries of ASHRAE research results.
- All this is on *ASHRAE.org*, just click on RESEARCH

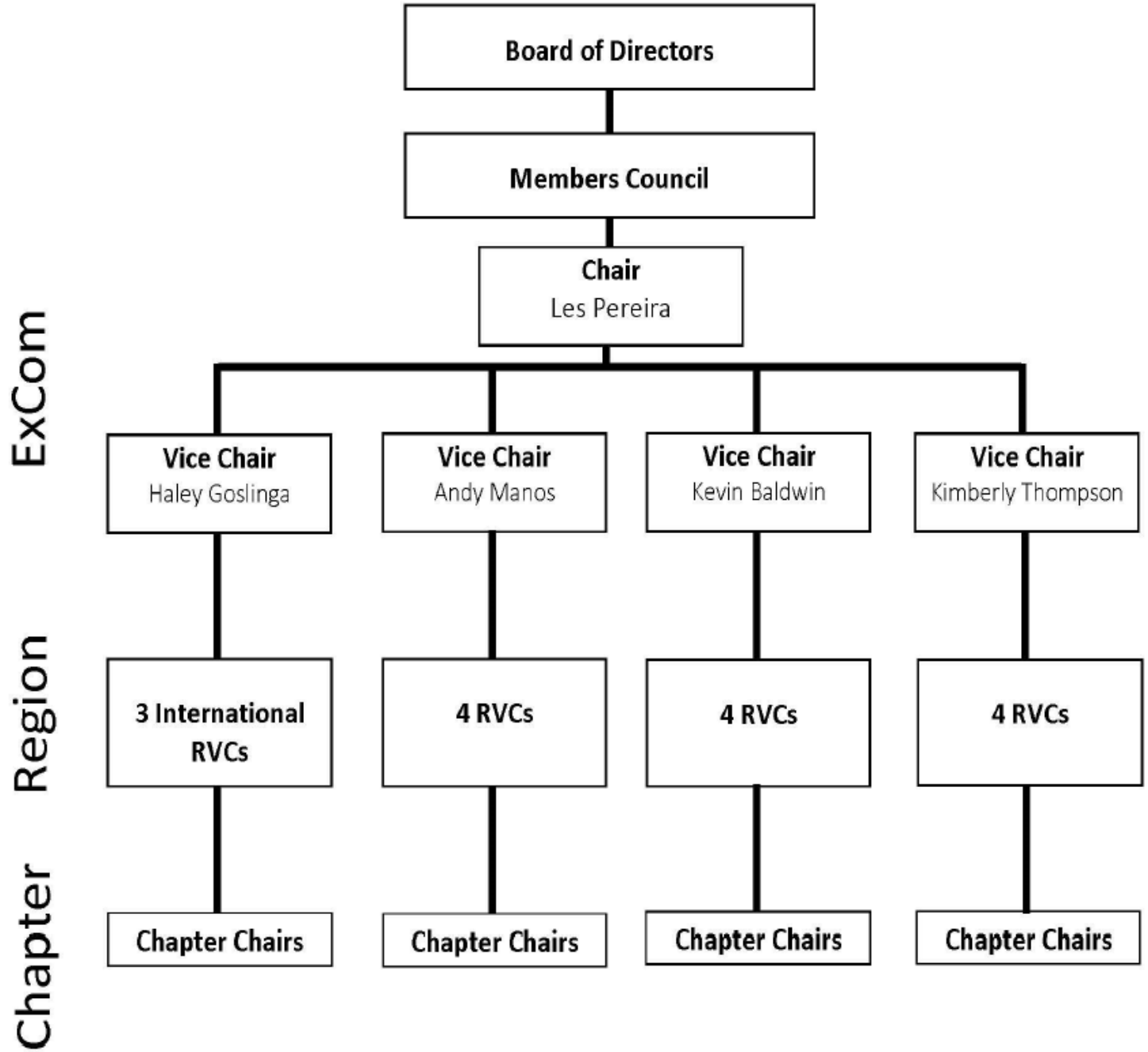
ASHRAE Research Promotion Campaign 2024-25

Chair: Les Pereira, lesper@me.com
Vice Chair: Haley Goslinga, haley.goslinga@trane.com

RP Campaign

YTD Results	Last YTD	% Ahead /Behind	Total Goal
$777,425	$775,431	0.25 %	$2,680,000

RP is focused on raising money from individuals and corporations to support Research, Education (ALI), the General Fund, YEA, and the Foundation (Endowed Research and Scholarships).


Board of Directors
Members Council
Chair
Les Pereira
ExCom
Vice Chair
Haley Goslinga
Vice Chair
Andy Manos
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Kevin Baldwin
Vice Chair
Kimberly Thompson
Region
3 International RVCs
4 RVCs
4 RVCs
4 RVCs
Chapter
Chapter Chairs
Chapter Chairs
Chapter Chairs
Chapter Chairs

ASHRAE RP Campaign

The ASHRAE RP Campaign raises critical funds to benefit Society and advance the mission of ASHRAE.

In 2024, the RP Campaign raised

$2.7 million

for these important initiatives.

24 Active Research Projects

20 Grants-in-aid for graduate students

62 Chapter and Society Scholarships

(awarding $255,000 annually)

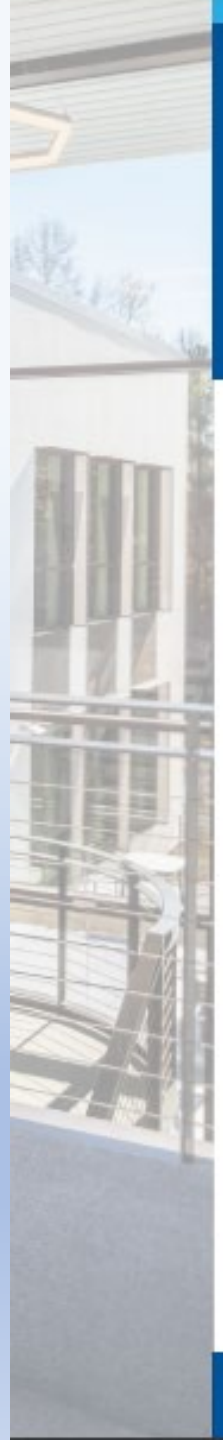
Chapter sustainability projects

Find out more about RP: www.ashrae.org/rp

2025–2028 ASHRAE Strategic Plan Preview

A preview of the 2025–2028 Strategic Plan is available for committees, councils and chapters to reference while planning for the upcoming 2025–2026 Society year.

The formal implementation of the 2025–2028 Strategic Plan will occur in July 2025.



MISSION:

To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields.

VISION:

A healthy and sustainable built environment for all.

STRATEGIC GOALS

1 Position ASHRAE as the **global leader** in advanced solutions to improve indoor environmental quality (IEQ) and address climate change.

2 Pursue **impact-focused engagement** by targeting stakeholders to support a strong workforce and maximize utilization, adherence, and trust of ASHRAE's global expert resources.

3 Increase the **accessibility** of ASHRAE content, resources, and member opportunities.

OBJECTIVES

a. Lead the development of widely adopted standards to support indoor environmental quality, decarbonization, and resilience.

b. Develop alliances and diverse working groups that position ASHRAE to lead and collaborate globally in identifying challenges, defining solutions, and developing approaches to address them.

c. Develop resources based on member needs and industry trends.

a. Tailor and target engagement and resources to ASHRAE members and defined key stakeholders.

b. Provide guidance to targeted stakeholders on impactful ways to maximize the positive downstream effect of their engagement on the built environment.

c. Empower professionals in their journey to maximize industry impact in support of ASHRAE's mission and vision.

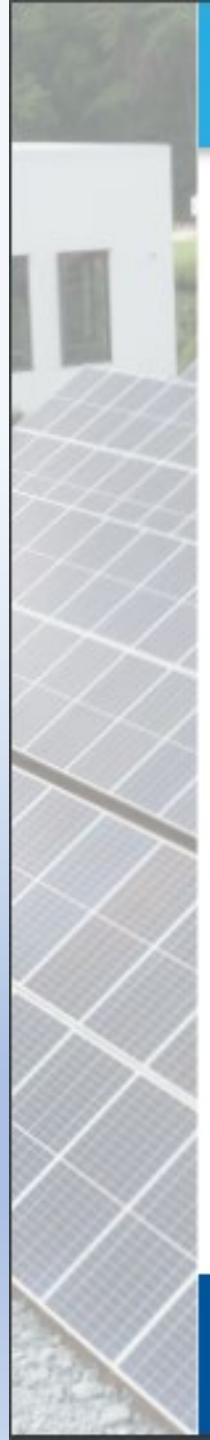
d. Pursue partnerships to amplify the impact of ASHRAE's mission and support the HVAC&R and built environment workforce.

a. Identify and address structural, content, and financial barriers to access.

b. Align communication and delivery methods and formats to enhance accessibility and effectiveness of content, resources, and volunteer opportunities.

c. Strengthen communication channels with and through chapters and regions to empower contribution to the Society as thought partners in adapting resources to local context and needs.

ORGANIZATIONAL VALUES | Collaboration, Commitment, Diversity, Excellence, Integrity, Volunteerism



Shaping Tommorrow's Global Built Environment Today

KEY ENABLERS

- **Research:** The value of ASHRAE's resources is grounded in unbiased data, developed through rigorous research methods.
- **AI:** The use of AI enables ASHRAE to improve data collection, automate internal operations, and promote agility.
- **Global Network:** ASHRAE's global network convenes the industry to generate unparalleled knowledge and content.

STRATEGIC INITIATIVES

Healthy, Sustainable and Resilient Communities

Providing a healthy, productive and resilient indoor environment, while minimizing greenhouse gas emissions, is critical to today's built environment. Further, global stakeholders' leveraging of ASHRAE's standards and technical resources presents an opportunity for ASHRAE to solidify global leadership in supporting healthy, sustainable and resilient communities. ASHRAE prioritizes timely identification of industry trends, expedient content development, and forges key partnerships to advocate and collaborate with industry.

Empowered Workforce

The development of a skilled, competent, and solutions-oriented workforce is critical to addressing the challenges facing the built environment and the HVAC&R industry, today and in the future. ASHRAE continues to provide educational and professional development resources. Our members and industry partners need these tools to implement key initiatives such as decarbonization, resiliency, and indoor environmental quality goals and policies. ASHRAE, with the support of our chapters and regions, partners with key industry stakeholders in tackling the unique workforce challenges facing the industry globally.

Organizational Agility

ASHRAE's ability to serve communities, the industry, the current and future workforce, and provide value to its volunteer members, is dependent on forward-looking products, services, and solutions. ASHRAE will use emerging technologies to support the development of resources and knowledge flow between ASHRAE's chapters, regions, technical bodies, and the industry, harnessing organizational and operational efficiencies.

Emerging Technologies

In today's rapidly evolving landscape, emerging technologies are revolutionizing the built environment and HVAC&R industry, expanding numerous career opportunities. By combining technological advancements such as AI with human creativity, both seasoned professionals and new talent can collaborate to drive industry-wide progress. Advanced automation and AI-enabled systems propel energy efficiency and smart buildings, enhance comfort and IEQ, improve operations and maintenance, and deliver holistic and sustainable solutions for industry professionals. ASHRAE engages in a thoughtful process to evaluate and prioritize opportunities to leverage new technologies.

OUTCOMES

- ASHRAE's member and volunteer base maximizes the organization's reach, foresight, leadership position, and organizational knowledge.
- A broad group of stakeholders leverage ASHRAE's resources to make decisions and meet objectives that positively affect the environment.
- A viable, thriving industry makes a positive global impact.

2025–2030? ASHRAE Research Strategic Plan

- The Research Advisory Panel (RAP) is being formed to develop the new plan.
- We are soliciting recommendation for RAP members.

RTARs, PTARs and WSs

Additional reminders for Authors

- Show full TC approval vote on RTAR and WS forms, INCLUDING votes of listed co-sponsoring TCs. Low vote turnout and high abstention rates are an issue.
- Include MILESTONES in WS so PMS can track and report successful research progress.
- When resubmitting, include revised version with changes tracked and document that explains how RAC comments were addressed. This includes initial WSs submitted after an RTAR accepted with comments.
- Review budgeting guidance
- All submissions go through your Section Research Liaison

Complete packages due March 15, May 15, August 15, December 15

ASHRAE WS Budget Guideline

Bottom-up Budget Estimation

- Typical budget categories:
  - Personnel
    - Salary and fringe benefit (often 30-40% of salary for PIs)
    - Categories
      - PI, CO-PI
      - Student (graduate and undergraduate)
      - Consultant
      - Technician
  - Data collection cost: survey, participant support, materials etc.
  - Equipment and facility
    - Hardware
    - Construction
    - Maintenance
  - Purchased service
  - Travel
  - Indirect cost
    - University typically has an indirect cost of 50-60%
    - Industry contractors often has less indirect cost rate
  - Tuition
    - Typically not subject to indirect cost
    - A ballpark estimation is 10-30k per year per student

Bottom-up Budget Estimation

- Resources
  - University:

    Many university budget estimation guidelines exist. Some concise ones:
    - https://ovpr.uchc.edu/services/sps/proposals/proposal-preparation/budget-prep-guide/
    - https://research.ncsu.edu/administration/budgeting-guidance/
  - Labor cost data:
    - https://www.bls.gov/charts/productivity-mining-manufacturing/labor-cost-indexes-by-industry.htm

Example of Recently Funded ASHRAE Project

Project	Year	Project Type	Duration (Mo)	Professional Salaries	PI Month	Research Assistants	Total Person Month	Fringe Benefits	Fringe Benefit Ratio	Equipment	Supplies and Materials	Computer Costs	Travel etc.	Others (IP, Tuition, Registration)	Indirect Cost Ratio	Total
1	2022	Analysis, survey	24	$136,000	1.7	$0	9.0	$0	0	$0	$0	$0	$0	$0	0	$177,000
2	2022	Analysis, simulation, field test	12	$15,250	1	$10,167	2.8	$5,652	37%	$0	$0	$0	$2,290	$7,293	56.50%	$59,528
3	2023	Analysis, database	18	$90,000	4.3	$50,000	17.3	$0	0	$0	$750	$0	$6,225	$1,000	0	$147,975
4	2024	Analysis, survey	24	$110,877	0.925	$0	5.6	$27,719	30%	$20,000	$0	$0	$0	$0	7%	$158,596

- These examples serve as an illustration of different budget categories and variations

Digital system for submissions & tracking

TCs have been beta testing online submissions for RTARs

To be rolled out more broadly for RTARS and WSs

Ensure all coversheet data is complete, and approvals have been met

Additional reminders for PES/PMS

- Take time to consider the expertise of subcommittee members
- Training must be completed before serving on PES and PMS
- Online training available, in person PES training for Phoenix
- 2 RAC members must be invited to your PES meeting to ensure proper procedures are followed

	Fall Solicitation	Spring Solicitation
Projects released for bid	Mid October	Mid March
Bids due from potential contractors	Mid December	Mid May
Contractors selected	Winter meeting	Summer meeting
Earliest possible start date for project	April 1	September 1

AWARDS

Summary of Award Deadlines

Award	Amount	Recipients	Submission Deadline
New Investigator Award	125 K	1	Dec. 1, 2025
Graduate Student Grant-in-Aid	5K +5K, 1.5K honorarium STBE	10-20	March 3, 2025
Homer Addams	3.5K	1	Dec. 15, 2025
Innovative Research Grant	50K +50K +25k	1	Dec. 3, 2025 Preproposal
Service to ASHRAE Research	Plaque	1*	Sept. 1, 2025

Graduate Student Grant-In-Aid

A Grant-in-Aid is a grant of funds to a full-time graduate student of ASHRAE-related technologies. It is awarded once each year for use in the following academic year.

Purpose: To acknowledge graduate students researching ASHRAE related technology, and welcome them into the society

Up to $10,000 plus $1500 for paper presentation

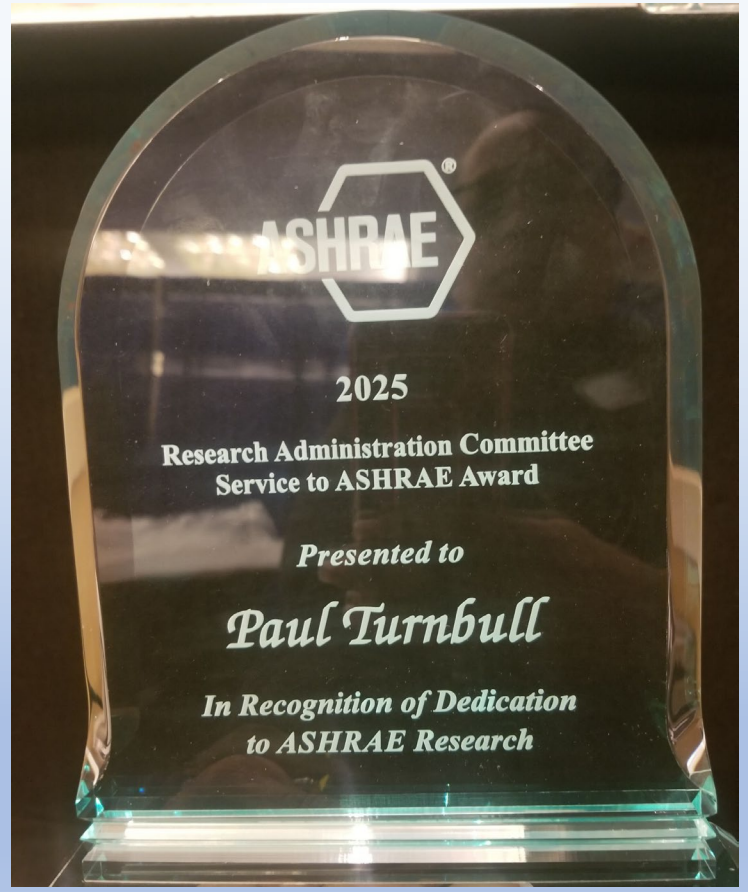
Select 10-20 candidates during spring meeting

The evaluation criteria for candidates include academic performance, quality of the student's thesis/research plan and its relevance to ASHRAE, the advisors' recommendation, and an overall assessment of the likelihood for future involvement of the student within ASHRAE.

2025 SERVICE to ASHRAE RESEARCH AWARD

Paul Turnbull

Nominated by TC 5.6



Summary

Identify knowledge gaps and challenges

- RAP nominations for next ASHRAE Research Strategic Plan
- Keep writing RTARs, PTARs and WSs March 15, May 15, Aug. 15, Dec. 15

Ensure PES training and PMSC training is completed

Help with Research Promotion and donate to ASHRAE Research

- Service to ASHRAE Research Awarded to Paul Turnbull of TC 5.6