

# SOL \* AIR

Newsletter for the Southern California Chapter of ASHRAE

Feb 2025 | Vol 69 No 4

## UPCOMING EVENTS



**ASHRAE WINTER CONFERENCE**  
**ORLANDO & AHR EXPO**  
 Sat-Wed Feb 8-12, 2025

## FEBRUARY MEETING

Tue Feb 4th, 2025

### Heat Pumps: Lessons Learned from the Field

Speakers Eddie Ortiz, Chief Engineer XCel Mechanical



Photo by homes.rewiringamerica.org

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## TICKETS

Students: FREE  
 Chapter Members: \$70  
 Non-Members: \$80

## LOCATION

Quiet Cannon Conference Center  
 901 Via San Clemente  
 Montebello, CA 90640

## REGISTER HERE

<https://socalashrae.eventbrite.com>



# Are you ready for electrification?

## Heat Pumps: Lessons Learned from the Field

- Highlighting common challenges in heat pump implementation
- Case studies demonstrating successful electrification projects
- Actionable strategies for avoiding common pitfalls



**EDDIE ORTIZ**

Chief Engineer  
Xcel Mechanical

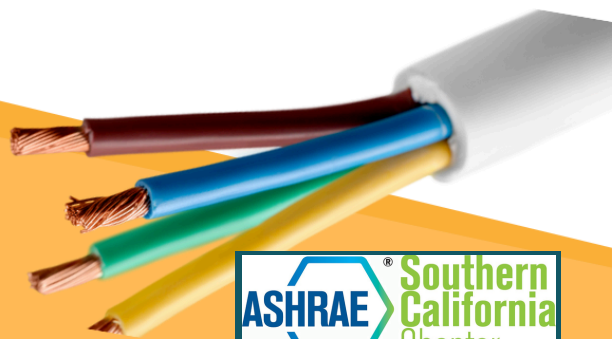
**FEBRUARY 4TH, 2025**  
**530-8PM**

Quiet Cannon, Montebello CA

RSVP: <https://socalashrae.eventbrite.com>

**02**

MONTHLY  
MEETING





# President's Message

Dear ASHRAE Southern California members and guests,

I hope you all are doing well and staying safe. It has been a tremendously challenging first month for our Los Angeles community with the recent wildfires fueled by extreme Santa Ana wind conditions and record low humidity. Our community has endured an unprecedented natural disaster that is hard to put into words. Our hearts go out to all those directly impacted.



Our January meeting was originally planned for January 7th. We were closely monitoring the extreme wind and red flag warnings issued by US National Weather Service for LA county prior to the meeting date. After a lot of thought, we decided to proceed with hosting the meeting and asked all attendees to travel cautiously to and from the venue following the recommendations of California Governor's Office of Emergency Services for driving during high wind event. The high winds during the meeting created a howling noise as it swept across the building's façade. Little did we know the level of devastation the windstorm-turned-firestorm was causing, as the Eaton fire also erupted. Driving home later that evening, I saw the Eaton fire raging in our mountains mimicking solar flares. It was humbling to witness the magnitude of the fire with the naked eye and realize how vulnerable our community is against nature's forces. Over the next couple of weeks, I realized that we must be resilient to thrive in this changing climate. Some might say it's too late to thrive, but I am an optimist and recommend that we keep pushing forward by taking the measures that are within our control and influencing positive change - whether it's in our projects or in our communities.

I wanted to highlight three key strategies to stay protected during wildfires and smoke events. As you may know, ASHRAE recently published Guideline 44, which provides guidance to protect building occupants from poor air quality and smoke during wildfire events. ASHRAE is currently providing free public access to a read-only version of this guideline until February 11th. We encourage you to review the guideline for details.

# President's Message

1. Wear an N95 mask while outdoors.
2. Ensure your HVAC system includes MERV 13 filters, and if possible, supplement with a portable air purifier with a HEPA filter.
3. Make provisions for activated carbon filters in your HVAC system or recirculating air purifiers for smoke/gaseous contaminants.



Despite the challenging weather, we had a great turnout and meeting on January 7th with local industry experts from consulting engineering and the utility side for a panel discussion on the Title 24 energy code. The panelists highlighted the key changes in the upcoming 2025 energy code, the rationale behind the big changes, and resources available for engineers and owners. The panelists also shared the energy code rule-making process and how each of us can get involved in shaping the future of California's energy codes! Looking ahead at our February meeting, Eddie Ortiz, P.E., will be presenting on the topic of Heat Pumps, where he will share the key lessons learned from the field. Eddie is the chief engineer at Xcel Mechanical and has deep expertise in troubleshooting heat pumps installed in various commercial projects.

As we go through challenging times in our community, now more than ever, we need to come together as a community and lend a hand to each other and cultivate resilience within our community. As I mentioned before, we are striving to have a safe and inclusive forum for all our members and guests and it's great to see folks attending our meetings and events and actively participating. Thank you for your continued engagement and participation in our chapter!

Thank you,

**Rafi Karim**

*ASHRAE SoCal President, 2024-2025*



# MEET OUR BOARD 2024-2025



## **Elyse McBride, PE**

Past President

[elyse.mcbride@ifactor.com](mailto:elyse.mcbride@ifactor.com)

Elyse McBride, PE is a mechanical engineer at Infrastructure Factor Consulting, Inc. She has experience with K-12 schools, hospitals, and commercial building design. She has previously served on the Tri-County ASHRAE board before moving to the SoCal ASHRAE region. She received her bachelor's degree in Mechanical Engineering from Cal Poly Pomona.



## **Rafi Karim, PE**

President

[Rafi.Karim@arup.com](mailto:Rafi.Karim@arup.com)

Rafi is the Mechanical Building Performance Leader for Arup's Los Angeles office with extensive experience leading multidisciplinary teams to deliver high-performance projects. Rafi is passionate about sustainable built environment and has served numerous grassroots positions in ASHRAE SoCal and ASHRAE San Diego during the last 11 years.



## **Matt Sittel**

President-Elect

[matt.sittel@rfmacdonald.com](mailto:matt.sittel@rfmacdonald.com)

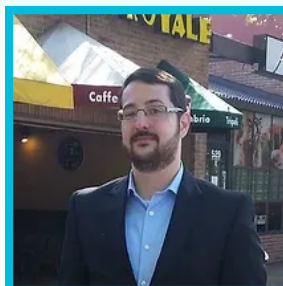
Matt Sittel is a New Equipment Sales Engineer for R.F. MacDonald Co., supporting clients with equipment and design assistance for hot water and steam boilers, pumps, and other commercial HVAC and industrial equipment. Matt covers West LA County through Santa Barbara. He has a passion for learning about and sharing new technology and energy-saving equipment and designs, as well as helping to solve complex problems with clients.



## **Shahpoor Khosravi, PE**

Treasurer

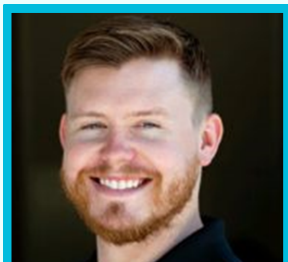
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## **Chet Dik**

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## **Alex Larson**

Director of Membership and Retention

[alex.larson@dmghvac.com](mailto:alex.larson@dmghvac.com)

Alex Larson is a sales engineer with DMG. He is currently the Director of Membership and Research Promotion and the Communications Co-Chair. Outside of work he enjoys scuba diving and backpacking.

# Thank you to our sponsor!

## ThermostatCare

### We Care About California Contractors and Communities

Mercury thermostats are considered universal waste and can pose a serious health hazard to our communities and environment if they are mishandled, broken, or are discarded in regular household trash.

Thermostat Care works with California DTSC to ensure that mercury thermostats are disposed of safely. We help contractors and service technicians comply with regulations by providing access to free drop-off locations or a free private collection container.

Request your free collection container today by completing a bin or pail request form and emailing it to the team at [ContainerRequests@ThermostatCare.org](mailto:ContainerRequests@ThermostatCare.org). All costs including the actual container, pre-paid return shipping, and collection materials are free of charge.

Service technicians are eligible to receive a \$30 mail-in rebate per mercury thermostat if they are a CA resident and the returned mercury thermostat(s) were removed from a building in CA. Please note that licensed CA contractors are not eligible for the rebate.



Please visit [ThermostatCare.org/Contractors](https://ThermostatCare.org/Contractors) to learn more

*Scholarship Applications  
are open!*

**\$50,000 WORTH OF  
SCHOLARSHIPS ARE  
AVAILABLE!**

Check it out on our website [www.ashrae-socal.org](http://www.ashrae-socal.org)

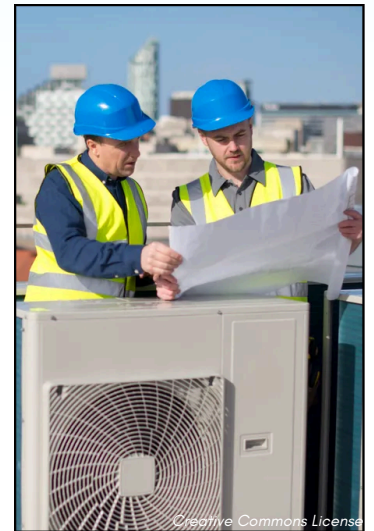


# MIKE'S MONTHLY MAINTENANCE



## Mike's Naughty and Nice List

It's that time of the year again, and I am excited to attend the Winter ASHRAE meeting/AHR show. I always see a couple of things which I would never have expected (the classic, "You don't know what it is that you don't know" situation). But in an unusual development, I have one specific thing in particular that I want to spend time examining: the heat pump chiller/boilers, from as many manufacturers as possible. Why? Because (as a group) the reps who are selling them do not yet know their product. Sure, there are exceptions, but at this point the product is a clear "let the buyer beware" situation...or more likely, "let the specifier beware". Why do I say that?



Let's start with service access. Several of these products require compressors to be removed from the end, rather than just the sides, of the unit. Yet some of the same manufacturers offer modules that are connected end-to-end in order to minimize footprint. Think about that...are we supposed to get a crane and lift one end of the unit off the building in order to replace a compressor? Some of the manufacturers also offer pre-made piping packages for these combined modules. The piping packages run down the side of the units, blocking compressor access. Think about that...are we supposed to have to drain the piping and remove it to replace a compressor? Then reassemble the piping, pressure test, re-fill, and repair the insulation afterward? These are just two real world examples that I've already seen. I'm already aware of at least 3 different manufacturer approaches to handling all the water that is going to run off these units as they provide heating (by cooling the outdoor air, thereby creating condensate). I'm going to suggest that these items are something that every specifier needs to know and account for in their design.

# MIKE'S MONTHLY MAINTENANCE



I think most of you have already thought about the design water temperature limitations when retrofitting a heat pump boiler in place of an existing gas boiler. You may already recognize the weight and footprint challenges. And possibly you've considered the building electrical service upgrades. But this needs to go even deeper; the electrical utility may not have the surplus capacity to handle the added load in some areas, regardless of the electrical upgrades that are made within the building. I'm thinking this is an excellent controls opportunity; it should be possible to limit peak electrical load on an existing building service in order to permit the addition of electric heat pump boilers. Whether that meets electrical code, or how it needs to be done in order to comply with code, is another matter. This may be an issue where building code will need to become more flexible, if the state's drive for all electric heat is to actually happen.

Maintenance for condensing boilers is significantly greater than for non-condensing, and required adopting some new procedures. In a similar way, maintenance for heat pump chiller/boilers seems as though it is even more than condensing boilers, and to be fully effective, will also need some new procedures. Remember, a building is not sustainable if it is not maintainable. I'm looking forward to seeing several different manufacturer's heat pump boilers at ASHRAE/AHR to get a better first-hand idea of how they are approaching what is discussed above, as well as anything new of which I'm not aware (you don't know what you don't know). More reporting to come...

As always, let me know if any questions or comments. [mgallagher@wasocal.com](mailto:mgallagher@wasocal.com)



# PEOPLE, PROCESS & PERFORMANCE



## Building Strategic Partnerships

### Communication Breakdown in Projects

Houston, we have a problem! Effective communication is the lifeblood of any successful project. When project team members and key stakeholders are on the same page, it paves the way for work efficiencies, timely delivery, and happy customers. When things don't go as planned, the finger pointing begins as nobody wants to take the blame, making the customer ultimately suffer.

It's not uncommon to hear HVAC sales engineers go back and forth with their design team to meet customer requirements or a project manager complaint about the commissioning agent's impact on the project's completion. Many studies say that at the root of it all, miscommunication is very often the culprit, leading to both internal and external misalignment on project deliverables. To avoid these pitfalls, it's crucial to implement techniques that foster clear, consistent, and open communication. In this month's article, I will share some tools and techniques to adopt or reinforce in your next project to avoid communication breakdown with your clients, partners, and employees.

### Change Control Process

Implementing a formal change control process is foundational to begin managing project scope changes effectively. This process involves submitting, reviewing, and approving changes systematically to ensure that all modifications are documented and evaluated thoroughly. A well-defined change control process must include a form to document in detail the change, its impact (to schedule, budget and scope), the approver, and an effective date. An email or a phone call is just not good enough because things can be easily misunderstood or left unread in an email. The change documentation form serves as a formal record and reference for the project team.

Potential Challenge: One of the main challenges is resistance from team members who may perceive the process as unnecessary or time-consuming. Communicating the purpose and benefits prior to implementation is key.

Best Practice/Tools: Consider adopting integrated software that allows integrated tracking of tasks, milestones and facilitates team communication all in one location.

# PEOPLE, PROCESS & PERFORMANCE



## Stakeholder Communication Plan

Effective communication helps manage expectations and reduces the risk of misunderstandings. Specifically, engaging stakeholders with clear and consistent communication is vital for managing scope changes. For each stakeholder group, the format (email, meeting, etc.) and frequency (weekly, monthly, quarterly) may differ based on their relative interest and influence on the project. Internal stakeholders like a project manager might need more frequent updates from the design team, while on the other hand a supplier may only need to be involved as needed.

Potential Challenge: Ensuring that all relevant stakeholders are involved and keeping communication lines open can be challenging. Driven by different needs or goals, people tend to read memos or engage in meetings only when absolutely necessary (i.e. when problems arise).

Best Practice/Tools: Early in the project request how team members or the client prefers to engage and receive project updates. Removing the guesswork out of the equation will simplify the communication of project changes and keep the team laser focused on providing value. To that effect, consider using stakeholder analysis tools and techniques, such as RACI matrices, to identify and engage the right stakeholders at the right time.

## Accessible Documentation

Document everything. When all things fail, people will often go look at what the design intent documents. Keeping project documentation up to date is essential for maintaining project alignment. This includes updating the project plan, scope statement, and other relevant documents to reflect approved changes. Accurate documentation can also help in the case of a lawsuit or claim of negligence, hence should be viewed not as pointless paperwork for management and rather as vital record for the project's success.



# PEOPLE, PROCESS & PERFORMANCE



Potential Challenge: In a fast-paced, multiyear projects where multiple contractors are involved, keeping documentation up to date can be challenging – especially for smaller companies who may not have a dedicated project management team. Changes may occur frequently, making it difficult to maintain accurate records. Multiple areas of record keeping can lead to incorrect information being shared.

Best Practice/Tools: Implement version control systems and use document management tools like SharePoint or Google Drive. These tools help track changes and maintain accurate documentation. Assign dedicated personnel to manage project updates, documentation and records quality control.

I hope you can take full control of your communication strategy to preserve your team's confidence and reputation as a smart project team that can effectively manage complex projects despite changes. Remember a process alone can't replace personal engagement. Please send any comments or questions to [ric@rocsolidteam.com](mailto:ric@rocsolidteam.com).

**Ricson Chude, PE, CEM, CEA, CMVP**

*Engineering Manager at Southern California Edison*



# CALLING ALL **MEMBERS**

Apply to the ASHRAE  
Technology awards today!

**Applications due March 28th**

Questions? Email [kristenkmale14@gmail.com](mailto:kristenkmale14@gmail.com)

<https://www.ashrae.org/membership/honors-and-awards/technology-awards-program>





# **SOCAL ASHRAE AND SHASE MEET-UP**

**EAT DRINK AND MEET ASHRAE AND  
SHASE MEMBERS FROM JAPAN**

\*SHASE: Society of Heating, Air-Conditioning and Sanitary Engineers of Japan

## **ALL SEASON BREWING**

**800 S LA BREA AVE LOS ANGELES, CA 90036**

**5:30PM-8PM**

- **NON-MEMBERS \$25**
- **ASHRAE MEMBERS - FREE!**
- **TACOS AND DESSERT WILL BE PROVIDED**
- **FREE STREET PARKING ALONG LA BREA AVE AND 8TH ST OR PAID PARKING GARAGE**
- **SPACE IS LIMITED, RSVP TODAY!**

**RSVP AT  
[HTTPS://SOCALASHRAE.EVENTBRITE.COM](https://SOCALASHRAE.EVENTBRITE.COM)**





## Jan Meeting: Title 24 Energy Codes Montebello, CA

Our January Meeting featured an engaging discussion on Title 24 CA Energy Code past, present, and future, with various viewpoints represented from our excellent moderator Michael Adams and Panelists Andy Reilman, Dave Intner, and Dominic Butler. The topics covered were wide-ranging and included upcoming changes in the 2025 cycle and their impact, resources available to industry

professionals, how to get involved with the Title 24 development process, and many shared experiences of the challenges and successes of managing and delivering for clients within the confines of Title 24. We had a great turnout and great audience participation – thanks to our moderator, panelists, and all attendees who made the meeting a success!



# 2024 EVENT RECAP







## DBIA LA/OC & ASHRAE - New Year New Mindset Workshop & Mixer

**Speaker: Karine Leblanc, Modular Solutions Sales Manager - West, Daikin Applied**

**Topic: Elevating AEC Leadership: The Power of Emotional Intelligence**

**Murray Co. Rancho Dominguez, CA**

ASHRAE SoCal Membership Promotion / YEA were happy to collaborate DBIA LA/OC and Murray Company to host a great event featuring our own SoCal Past-President Karine Leblanc as the speaker! It was a great evening of socializing and networking, and the interactive presentation gave us all a lot to think about regarding our own emotional intelligence, self-reflection, and interpersonal relations at work and beyond.

We're looking forward to more collaboration with DBIA LA/OC!

# 2024

# EVENT RECAP



# BOARD ROSTER

2024-2045 ASHRAE Southern California Board

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Research Promotion Co-Chair	Rey Ong	626-552-6660	rong@siglers.com
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<b>Director of Public Relations &amp; Correspondence</b>	Open		
Women in ASHRAE Chair	Karine Leblanc	310-347-9177	karine.leblanc@daikinapplied.com
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Chapter Website & Communications Chair	Rey +Alex L	626-552-6660	rong@siglers.com
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Golf Tournament Co-chair	Kari Stachowiak	714-823-1418	karis@CriticalAirTech.com
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