

# Orange Spiel

Juicy News from ASHRAE's Orange Empire Chapter



## MEETING INFORMATION

TUESDAY, MARCH 10, 2020

### THIS MONTH'S MEETING WAS AT BAGBY BEER COMPANY

601 South Coast Highway  
Oceanside, CA 92675

Social/Registration . . . . . 5:30 – 7:00 p.m.  
Dinner/Announcements . . 7:00 – 7:30 p.m.  
Dinner Presentation. . . . . 7:30 – 8:30 p.m.

**PLEASE E-MAIL (PREFERRED),  
OR CALL WITH YOUR  
RESERVATIONS TO:**

Ryan Sibley c/o TK1SC  
rsibley@tk1sc.com  
Direct: 949.751.5923  
Office: 949.751.5800

### PRICE SCHEDULE

Member . . . . . \$45  
Non-Member . . . . . \$50  
Student . . . . . \$10  
Member Day of Event . . . . . \$50  
Non-Member Day of Event . . \$55  
Vendor Table Tops . . . . . \$150

### REGISTRATION CLOSED

**IF CANCELLATION IS NOT  
RECEIVED YOU WILL BE BILLED  
FOR THE SESSION**

### DINNER PROGRAM

**"Net-Zero Building vs. Net-Zero  
District Perspective"** by Luke Leung,  
ASHRAE Distinguished Lecturer,  
Skidmore, Owings & Merrill

### NO TECHNICAL SESSION

#### Orange Spiel Editor

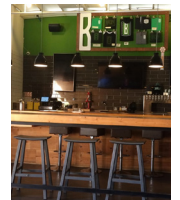
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## THE MARCH JOINT MEETING WITH THE SAN DIEGO CHAPTER WAS TUESDAY, MARCH 10, 2020

The ASHRAE Orange Empire and San Diego Chapters welcomed its members who joined us for the March 2020 Joint Chapter meeting this March 10th. This month's meeting was held at The Bagby Beer Co in Oceanside.



**ENJOY BAGBY'S  
TACO BAR & BEER!**



### DINNER PROGRAM NET-ZERO BUILDING VS. NET- ZERO DISTRICT PERSPECTIVE

Over the last decade, the architectural and engineering design community has made great strides in improving the energy efficiency of buildings. This has been inspired by standards and guidelines developed by ASHRAE, USGBC, various government agencies and a public awareness translating to market demand.

Buildings currently represent 49% of the US energy consumption on an annual basis. The demand for energy efficiency goes beyond energy consumption and includes energy demand especially in economically expanding countries like China and India where there is a severe gap between electricity supply and projected demand over the next 10-20 years.

The next phase in the energy efficient design will challenge the community to produce Net Zero Buildings (NZB). This challenge in the US by the AJA targets the year 2030 and in Europe, the target was year 2019. To achieve the target net zero for the next generation, the answer may partially rest in the larger infrastructure in the city from the central heating and cooling plant, co-generation, clean energy from the grid and looking at waste or renewable sources as a "resource" to generate power, similar to nature that has no waste and is integrated as a whole.

Building energy efficiencies have been greatly enhanced over the last three decades by utilization of high efficiency glazing and envelopes, effective use of day lighting, high efficiency lighting, energy star computers and appliances etc. The energy required has been  
**See DINNER PROGRAM page 2)**



## DAVID'S BLOG

With the poppies in full bloom, the painted lady butterflies migrating and daylight savings behind us it can only mean one thing... spring is upon us and that means it was time for the joint meeting with our friends from San Diego.

This year San Diego hosted the meeting at Bagby Beer Company in Oceanside on March 10th.

ASHRAE is a volunteer organization and the



Chapter's success is dependent on all our members helping and supporting where they can.

Please let me know if you have any comments or suggestions, we can always use the input and feedback to better the Chapter.

Every year, our Chapter is encouraged to have our members submit their projects for the ASHRAE Regional and National Technical Awards. We all work very hard at what we do and deserve the right to brag about our projects. I want to encourage you to submit

a project before the deadline mid-May. The 5 different project categories are Commercial Buildings (New, existing, existing commissioning), Institutional Buildings, Health Care Facilities, Industrial Facilities or Processes, Public Assembly, Residential. Stay tuned for an email with more information.

Lastly, next month's meeting we will be back at the Phoenix Club in April. In addition to our dinner presentation, we will also be offering a technical session as well.

Until next month, stay comfortable... **David Lawson** 

## DINNER PROGRAM

*(continued from page 1)*

further reduced by the application of renewable energy strategies such as active solar systems, photovoltaic systems and building integrated wind turbines.

Studies by National Renewable Energy Laboratory (NREL) have shown that zero energy becomes more difficult to achieve as the building height increases. However, the study also concludes that 62% of buildings could achieve net zero. Climate, of course, plays a major role in achieving the net zero with different strategies for efficiency and renewable strategies depending on climate.

Tall buildings represent some challenges, but also opportunities in energy efficient design due to the changes in environmental conditions with altitude. As we strive to design NZB, there may be a point of diminishing returns economically. This extends the idea of NZB to Net Zero District (NZD).

There are many advantages

that can be offered by a NZD such as more land is generally available for the alternative energy plants due to the limited site area of individual buildings. A district plant, electric, cooling, and/or heating will also see significant load diversity due to serving multi-use buildings. The plant can also use larger, more efficient, generating equipment and would likely have unblocked access to the resources of wind and sun. Strategic locations of the generating plant can take advantage of increased efficiency measures such as lake or sea water cooling. Another main advantage of the NZD is that the responsibility is shared by the building owners, the utility companies and the local and federal government.

We propose a design process to achieve NZB/NZD that begins with optimizing the architectural systems to reduce the energy requirements of buildings and then apply practical alternative energy strategies at the building level. At the district level, apply

large scale alternative energy strategies such as thermal solar, photovoltaic and wind turbines for power generation. Next, apply non fossil fuel co-generation technologies for remaining peak and annual energy requirements.

Our speaker, Luke Leung, is a LEED (Leadership in Energy and Environmental Design) Fellow; He is also a Centennial Fellow from The Pennsylvania State University Architectural Engineering Department; Board of Directors for USGBC (United State Green Building Council), Illinois; Chairman of the ASHRAE (American Society of Heating, Refrigeration and Air Conditioning) Committee on "Tall Buildings"; Chairman of the Building Pressure Committee, Chicago Committee on High Rise Buildings; Sustainable Committee with Council on Tall Buildings and Urban Habitat; Part Time Professor at IIT; Member of the Chicago Sister Cities Program with China; MBA from University of Chicago, MS and BAE from See **DINNER PROGRAM** page 5)



**ASHRAE Tri-County Annual Golf Tournament**  
**Thursday, April 09<sup>th</sup> 2020**

**Hidden Valley Golf Club**  
**10 Clubhouse Dr., Norco, CA 92806**  
**Registration and Lunch:** 10am •• **Tee-off:** 12pm •• **Banquet:** 5pm

Entry into tournament includes 18-holes of golf, riding cart, lunch, dinner and chance to win various prizes!

Banquet Awards and Recognition:

- Trophy and Cash Prize for 1<sup>st</sup> and 2<sup>nd</sup> Place
- Cash Prize for Closest to the Pin
- Cash Prize for Longest Drive
- Prize Drawing

**See Attached Registration Form for More Info!**

**See you there!**



## 2020 Annual Golf Tournament

**Tournament:**

Single Player Golfer with Banquet Ticket: **\$185**

Foursome with Banquet Tickets: **\$700**

**Sponsorships:**

Hole Sponsorship: **\$150**

Lunch Sponsorship (Company sign at lunch table): **\$150**

Dinner Sponsorship (Company sign at banquet tables): **\$250**

Raffle/Door Prize

**- EVENT REGISTRATION -**

Name	e-mail Address	Company Name	Price
Sponsorship Item			Price
Subtotal:			

Instructions for Registering:

- **For Payment Through Credit Card/PayPal [DUE BY April 2<sup>nd</sup> at Noon]:**
- Visit <https://events.eventzilla.net/e/2020-ashrae-tricounty-golf-tournament-2138776043>
- **For Payment by Check [POSTMARKED BY March 30<sup>th</sup>, 2020]:**
  - Make Checks Payable to "Tri-County ASHRAE"
  - Mail Check(s) and a Copy of Registration Form(s) postmarked on or before 03/31/2020 to:
 

Kakeru Fujikawa – Goss Engineering  
255 E. Rincon St., Suite 301 | Corona, CA 92879  
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**CHAPTER OFFICERS**

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 Treasurer . . . . . Mary Johnson  
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David M. Lawson

**CRC ALTERNATE**

Benjamin L. Chesser

**ASHRAE  
 ORANGE EMPIRE CHAPTER**

**2019-2020  
 PARTIAL ROSTER**

**SPIEL DEADLINE**  
**The April deadline**  
**for articles or ads is**  
**FRIDAY,**  
**APRIL 17, 2020**

**COMMITTEES AND CHAIRPERSONS**

Administrator . . . . . Jeffrey D. Hanzel  
 Administrator . . . . . John Sawyer  
 Communications . . . . . Ryan Sibley  
 Diversity in ASHRAE . . . . . Mary Johnson  
 Government Affairs . . . . . Chris Farrington  
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 YEA Co-Chair . . . . . Kevin M. Smith, PE  
 Webmaster . . . . . Ryan Sibley

**DINNER PROGRAM**


*(continued from page 2)*

Architectural Engineering at Penn State University.

Luke is a Director of the Sustainability Engineering Studio for Skidmore, Owings and Merrill LLP. His work includes Burj Khalifa, the world's current tallest man-made structure; Multiple times "Excellence in Engineering" award from the American Society

of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE); 2 awards from National Institute of Building Sciences, among others.

Selected projects also include Pertamina Tower (Net Zero Supertall), General Motors Global Headquarters, Roche Diagnostic in Indianapolis, Beijing Finance Street, Embassy of Ottawa in Canada, Embassy in Beijing,

Lakeside - 55 million sqft low energy development, a LEED Platinum building with the first large scale horizontal wind turbine in the city of Chicago; etc., and has served as a member of the editorial team for the CTBUH guide Natural Ventilation in High-Rise Office Buildings, ASHRAE "Design Guide for Tall, Supertall, Megatall Building Systems", among other publications.. 

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## ORANGE EMPIRE CHAPTER

### WINTER/SPRING 2019/20 SCHEDULE

#### MEETING LOCATION:

#### BAGBY BEER COMPANY

601 South Coast Highway  
Oceanside, CA 92675

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#### TUESDAY, SEPTEMBER 24, 2019

*Dinner: VRF and Hydronics Systems:  
A Strategic Comparison*

*Theme: Energy Night*

*Place: Phoenix Club, Anaheim*

#### TUESDAY, OCTOBER 22, 2019

*Tech: The Devil's in the Details - a CEU  
Presentation on what to Look out for  
when Installing Boiler and Water Heater*

*Dinner: Balanced Energy*

*Place: The Phoenix Club, Anaheim*

#### TUESDAY, NOVEMBER 19, 2019

*Tech: Driving to Net Zero: What Does it take  
for a Student Housing Project?*

*Dinner: 2019 California Code Updates from a  
Mechanical Perspective*

*Theme: Research Night*

*Place: Phoenix Club, Anaheim*

#### TUESDAY, DECEMBER 10, 2019

*Dinner: Holistic Thinking for Multidisciplinary  
Design Solutions*

*Theme: Joint Meeting with Tri-County Chapter*

*Place: So Cal Gas Energy Resource Center,  
Downy*

#### TUESDAY, JANUARY 28, 2020

*Dinner: Sustainable Refrigeration Systems:  
Trends and Practices*

*Theme: Joint Meeting with ASHRAE Tri-  
County Chapter – Refrigeration Night*

*Place: Phoenix Club, Anaheim*

#### TUESDAY, FEBRUARY 25, 2020

*Tech: Fault Detection and Diagnostics*

*Dinner: A Picture Stroll Through HVAC; the  
Good, the Bad and the Ugly from a  
Maintenance Perspective*

*Theme: Membership Promotion Night*

*Place: Phoenix Club, Anaheim*

#### TUESDAY, MARCH 10, 2020

*Dinner: Net-Zero Building vs. Net-Zero District  
Perspective*

*Theme: Joint Meeting with San Diego Chapter*

*Place: Bagby Beer Company*

#### TUESDAY, APRIL 28, 2020

*Tech: TBD*

*Dinner: HVAC System Design*

*Theme: Student Night*

*Place: The Phoenix Club, Anaheim*

#### MAY DATE TBD

*Dinner: 2019-2020 Installation Night Dinner*

*Theme: Officer and Board Installation*

*Place: TBD*



# Orange Spiel



[www.orangeempirearise.weebly.com](http://www.orangeempirearise.weebly.com)

#### MEETING SUMMARY

**TUESDAY,  
MARCH 10, 2020**

#### DINNER PROGRAM

*“Net-Zero Building  
vs. Net-Zero District  
Perspective”* by Luke

Leung, ASHRAE  
Distinguished Lecturer,

Skidmore, Owings & Merrill

#### NO TECHNICAL SESSION

#### Orange Empire ASHRAE

2312 Park Avenue, #407  
Tustin, CA 92782