

Attend the Conference and Earn 1.6 AEE Credits | 0.8 CEU | 8 PDH

**AEE** ENERGY  
CONFERENCE & EXPO

**West**

# Conference PROGRAM



Welcome from AEE

**Bill Kent** C.E.M.,  
Executive Director

**Association of Energy  
Engineers**

9:00-9:10 am



Welcome Address

**Patricia M. Mahan**

Vice Mayor

**City of Santa Clara**

9:10-9:20 am



The Current Energy  
Efficiency Landscape in  
California: how we got here  
and where we are going!

**Ann L. McCormick**

P.E., Senior Vice President

**Willdan Group, Inc.**

9:20-9:50 am



Update on the  
State of California's  
Energy Policy

**J. Andrew McAllister**

Commissioner

**California Energy  
Commission**

9:50-10:20 am



Tesla – Becoming  
the Safest Company  
in the World!

**Laurie Muse Shelby**

C.I.H., C.S.P., M.S.

Vice President –  
Environmental,  
Health & Safety

**Tesla**

10:20-10:50 am

Wednesday, June 5th

in Hall A-2

## Opening Session

8:00 am

**Opening Session Networking  
Continental Breakfast**

Enjoy coffee & network with colleagues prior  
to the opening session.

9:00 am - 11am | Chair: Lori Moen

**Opening Session Keynote Speakers**

Listen to industry leaders discuss technology, policy,  
and innovation that will drive the future of clean  
energy for California.

## AEE West 2019 Event Sponsors



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Supporting Organization

# Agenda **At-a-Glance**

## Wednesday

**8 am**

Opening Session Breakfast

**9 - 11 am**

Opening Session | Hall A-2

**10 am - 4 pm**

Technology Expo | Hall B

>>EXPO HALL

Refresh  
with  
Coffee &  
Cookies

**12 - 1 pm**

Attendee Lunch | Hall A-1

**2 - 4 pm**

Conference Tracks | See Schedule

**4 - 6pm**

Networking Reception | Hyatt Regency  
Hotel's Terra Courtyard

## Thursday

**7:30 - 9 am**

CWEEL Breakfast | Hall A-2

>>8:45 am

Prize  
Giveaway  
CWEEL

**9 - 11 am**

Conference Tracks | See Schedule

**10 am - 2 pm**

Technology Expo | Hall B

**12 - 1 pm**

Attendee Lunch or AEE Local Chapter  
Lunch | Hall A-1

**2 - 4 pm**

Conference Tracks | See Schedule

>>1:45 pm

Prize  
Giveaway  
Exhibitor  
Forum  
Area 2

Follow our Tweets...

 **#AEEWest**

# Your Energy Conference

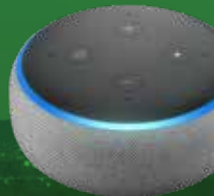
2019 begins a new era of energy events. As the presenter of EMC® for 37 years, the Association of Energy Engineers is evolving to deliver exceptional networking and educational opportunities across our combined conferences and expos.

## Prize Giveaways

### Win an Amazon Echo Dot

at the CWEEL Breakfast Giveaway.

Drawing will be Held Thurs. 8:45 am in Hall A-2 \*Must be present to win.



**Win the AEE Expo Prizes** of \$200 Cash, \$100 Cash, and one free AEE Conference Registration. Hand in your Business Card at the AEE Booth to enter the competition. Drawing will be Held Thurs. 1:45 pm at the Exhibitor Forum Area 2. \*Must be present to win.

[west.aeecenter.org](http://west.aeecenter.org)

**10 am - 4 pm**

## Technology Expo

Visit Expo Hall B to engage with exhibitors and learn about their products services and solutions.

**12 noon - 1 pm**

## Conference Attendee Luncheon

Network with attendees, exhibitors & speakers in Expo Hall A-1

**2 - 4 pm**

## Conference Track Sessions

Learn The Latest Energy Management Strategies.

**4 - 6 pm**

## Opening Night Networking Reception

Network with attendees, exhibitors & speakers at the Hyatt Regency Hotel's Terra Courtyard.

### TRACK 1: Policy, Trends & Initiatives

MISSION CITY B5

### TRACK 2: Advanced Technology & Renewables

MISSION CITY B4

### TRACK 3: Trends in Energy Efficiency

MISSION CITY M1

### TRACK 4: High Performance & Green Buildings

MISSION CITY M2

### TRACK 5: Energy Management

MISSION CITY M3

#### Session 1A

### Advances in the California Clean Energy Economy

**Chair:** MaryAnne Lauderdale, P.E., C.E.M., Director of Engineering, PowerSecure, Inc.

**2:00 - 2:30pm**

#### How HVAC Compliance and Enforcement Modernization Can Create an IoT-based Power Grid

Rita Renner, California Energy Alliance and co-speaker Eric Taylor, GreenNet

**2:30 - 3:00pm**

#### Building & Operating a 36,500 tons per year AD Facility in CA

Thomas Gratz  
Hitachi Zosen USA, LLC

**3:00 - 3:30pm**

#### How Biogas and Microgrids Can Deliver the Clean, Resilient Electrical Grid California Needs

Asim Hussain, Bloom Energy

**3:30 - 4:00pm**

#### California Climate Investments

James Tipton, California Air Resources Board

#### Session 2A

### Alternative & Renewable Energy Case Studies & Current Economics

**Chair:** Lori K. Moen, C.E.M., C.E.P., NCSBA, Manager, Solutions Design & Management, Customer Energy, Seattle City Light

**2:00 - 2:30pm**

#### Waste to Energy, Emerging Gasification Technologies

Bernard Brown  
Aries Clean Energy

**2:30 - 3:00pm**

#### Renewable Energy Hybrid Solutions Behind the Meter

Beau Griffey  
Trane

**3:00 - 3:30pm**

#### Optimizing Solar & Storage Deployment with EV Charging

Andrew Goldstone, EDF Renewables

**3:30 - 4:00pm**

#### LINC VAB Solar Thermal Retrofit Case Study

Jeff Horn, SoCalGas

#### Session 3A

### Solving the Problem of Quantifying Efficiency

**Chair:** Steve Kromer, P.E., Energy Engineer, SKEE

**2:00 - 2:30pm**

#### Measure to Manage: M&V at ZNE Facilities

Susan Freed  
County of San Diego

**2:30 - 3:00pm**

#### The Coming Train Wreck in California: Why Interval Meter Based M&V is Bound to Fail

John Avina  
Abraxas Energy Consulting

**3:00 - 3:30pm**

#### Campus of the Future - How to Use Data Driven Continuous Commissioning to Plan for the Future

Phil Alwitt & Andreas Winardi, Siemens

**3:30 - 4:00pm**

#### Hi, I'm NMEC and I'm Here to Rescue You

McGee Young, Recurve

#### Session 4A

### Big Data & Energy Analytics

**Chair:** Will Coleman, CEO, Lucid

**2:00 - 2:30pm**

#### Beyond Analytics: Software is Enabling Energy Management

Will Coleman, Lucid and co-speaker: Claire Curtin, Lawrence Berkeley National Laboratory

**2:30 - 3:00pm**

#### LSC Transformation - Achieving a 35% Reduction in Building Energy Use

Julie Pett, The University of British Columbia

**3:00 - 3:30pm**

#### Energy Management Success Stories: Demand Side Energy Management Strategies at NYC Health + Hospitals

Diana Eusse, NYC Health & Hospitals

**3:30 - 4:00pm**

#### Connecting Analytics with Accounting

Justin Owen  
Weber State University

#### Session 5A

### Success in Energy Management & Performance

**Chair:** Sol Rosenbaum, P.E., C.E.M., C.P.M.P., Director, Green & Energy Services, GRS Group

**2:00 - 2:30pm**

#### Training the Next Generation of Energy Engineers; How I Started Mentoring

Sol Rosenbaum, GRS Group

**2:30 - 3:00pm**

#### \$10 Million Saved (So Far) and a Healthier Planet - Conservation in a K12 School District

Kelly Campbell & Paul Cash, Mansfield Independent School District

**3:00 - 3:30pm**

#### Keys to Driving a Successful Energy Management Program

Leo O'Loughlin, JLL

**3:30 - 4:00pm**

#### Energy Efficiency, Power Quality, & Power Factor

Adil Khan, TransPower Company





**CWEEL**

**Keynote Speaker**  
Carolyn Parrs, CEO  
**Mind Over Markets**  
and **Founder of**  
**Women of Green**

**Thursday** June 6th

>>8:45 am

Prize  
Giveaway  
CWEEL

**7:30 - 9:00 am**

**CWEEL Breakfast**

Transforming Sustainability from a "Check-the-box" Approach to a Strategic Growth Driver that can Move Your Market and Change the World

Join us in the Expo Hall A-2 for a FREE networking breakfast and keynote speech.

**9 am - 11 am**

**Conference  
Track Sessions**

Learn The Latest Energy Management Strategies.

**10 am - 2 pm**

**Technology Expo**

Visit Expo Hall B to engage with exhibitors and learn about their products services and solutions.

**TRACK 1:  
Policy, Trends  
& Initiatives**

MISSION CITY B5

**TRACK 2:  
Advanced Technology  
& Renewables**

MISSION CITY B4

**TRACK 3:  
Trends in  
Energy Efficiency**

MISSION CITY M1

**TRACK 4:  
High Performance &  
Green Buildings**

MISSION CITY M2

**Session 1B**

**Energy Efficiency Policies  
& Programs**

**Chair:** Ross Dillon, Project Director, WSP

**9:00 - 9:30am**

**Federal Energy & Fiscal Policies  
Effecting Utility Feeder Systems**

Fred Petok  
USDA

**9:30 - 10:00am**

**Rewards for Innovation: How  
Research and Development Tax  
Credits Propel Innovation in the  
Green Building Industry**

Daniel Audette  
R&D Tax Savers

**10:00 - 10:30am**

**Education/Training on Using  
Building Controls Strategies to  
Maximize Energy Efficiency**

Kerly Hichcock, British Columbia  
Institute of Technology

**10:30 - 11:00am**

**Simplifying the Complex Nature  
of Portfolio-Wide Energy  
Efficiency Assessments on Leased  
Commercial Office Space**

Ross Dillon  
WSP

**Session 2B**

**Transportation,  
EVs & the Grid**

**Chair:** Ian Metzger, P.E., C.E.M., LEED AP, Senior Program Development Engineer, Lockheed Martin Energy

**9:00 - 9:30am**

**A Case Study of TVA's Non-Road  
Transportation Electrification  
Project**

Ian Metzger, Lockheed Martin  
Energy and lead co-presenter:  
Courtney McKibben, TVA

**9:30 - 10:00am**

**Analysis of Electric Vehicle  
Purchase Incentives and Business  
Case for Electric Buses**

Caley Johnson, National Renewable  
Energy Laboratory

**10:00 - 10:30am**

**Smart EV Charging for Grid and  
Renewables Integration**

Marc Monbouquette, eMotorWerks

**10:30 - 11:00am**

**Lessons Learned from Public  
Charging in Amsterdam and  
Rotterdam**

Megha Lakhchaura, EVBox

**Session 3B**

**The Evolving Energy  
Efficient Landscape on the  
West Coast**

**Chair:** Donald Swick, P.E., Facilities Engineer, University of New Mexico

**9:00 - 9:30am**

**Sustainable Make-Over of Farris  
Engineering Center, University of  
New Mexico**

Donald Swick  
University of Mexico

**9:30 - 10:00am**

**The Next Evolution:  
Connected Buildings**

Peter Sharer, Trane and co-speaker  
Laura Jelin, Trane

**10:00 - 10:30am**

**Powerful Energy – Why the  
Quality of Energy Matters**

Andy Taylor  
Applied Power Technologies, Inc.

**10:30 - 11:00am**

**Electric Cost Allocation and Rate  
Design in a New Era**

Jim Lazar  
Regulatory Assistance Project

**Session 4B**

**Carbon Neutrality &  
Zero Net Energy through  
Efficiency & Innovation**

**Chair:** Ricson Chude, P.E., C.E.M. C.E.A., C.M.V.P., Project Manager, Southern California Edison

**9:00 - 9:30am**

**Deep Building Retrofits for  
Energy and Carbon**

Rod Yeoh  
DIALOG

**9:30 - 10:00am**

**Resilience and Energy Security  
at Army Installation**

Muhammad Bari, US Army -  
National Training Center Fort Irwin,  
CA

**10:00 - 10:30am**

**Cost Effective ZNE –  
Scalable Solutions from  
Small Commercial Buildings**

Cindy Regnier, FLEXLAB & John  
Bruschi

Integral Group

**10:30 - 11:00am**

**Zero Energy Buildings – A Path  
to Zero Carbon**

Cathy Higgins  
New Buildings Institute



**Chapter Lunch  
Speaker**  
Jon Wellingshoff  
Chief Executive Officer,  
**GridPolicy, Inc.**

>>1:45 pm

**Prize  
Giveaway**  
Exhibitor  
Forum  
Area 2

**12 noon - 1 pm**  
**Conference  
Attendee Luncheon**  
Network with attendees,  
exhibitors & speakers in  
Expo Hall A-1

**12 noon - 1:30 pm**  
**AEE Silicon Valley  
Chapter Luncheon\***  
**Everything in Your Power!**  
Join us at Hall A-2 for  
luncheon, a chapter meeting &  
presentation.

**2 pm**  
**Expo  
Ends**

**4 pm**  
**Conference  
Ends**

\* Registration is included for all  
paid conference attendees and  
is \$20 for all others.

**TRACK 1:  
Policy, Trends  
& Initiatives**

MISSION CITY B5

**TRACK 2:  
Advanced Technology  
& Renewables**

MISSION CITY B4

**TRACK 3:  
Trends in  
Energy Efficiency**

MISSION CITY M1

**TRACK 4:  
High Performance &  
Green Buildings**

MISSION CITY M2

**Session 1C**  
**Ducks, DERS & Dollars:  
The Evolving C&I  
Customer Experience in  
California**  
**Chair:** Napallo Gomez, Manager,  
Business Energy Solutions, Pacific Gas  
& Electric Company

**2:00 - 4:00pm**  
Join California utility, technology  
& policy experts for panel  
presentations, open discussion,  
and moderated Q&A. The  
panel will explore CA-specific  
topics, ranging from clean  
energy policies, energy storage  
technologies, how they, and how  
the value proposition for energy-  
efficiency investments continues  
to evolve for C&I end-users. What  
do the ambitious state goals, that  
are set to be realized over the  
next decade mean for the C&I  
end-user experience?

**Panelists**  
**Angela Gordon**, Lockheed Martin  
Energy  
**Peter Thompson**, PG&E  
**Jerry Kea**, PG&E  
**George Minter**, SoCalGas  
**Jin Noh**, Strategen Consulting

**Session 2C**  
**The Future of  
Energy Storage**  
**Chair:** John Avina, C.E.M., C.E.A.,  
C.M.V.P., B.E.P., C.S.D.P., CxA,  
President, Abraxas Energy Consulting

**2:00 - 2:30pm**  
**A Battery for Chilled Water  
Systems - Helping to Address Grid  
Changes**  
Terry Andrews  
CALMAC, A Portfolio of Trane

**2:30 - 3:00pm**  
**Intelligent Residential Air  
Conditioning to Address the  
New TOU Rates – Small Scale Air  
Conditioning with Ice Storage**  
Greg Miller  
Ice Energy

**3:00 - 3:30pm**  
**The Role of Storage in a  
Comprehensive Distributed  
Energy Strategy**  
Zach Einterz  
Stem, Inc.

**3:30 - 4:00pm**  
**Distributed Energy System and  
Microgrid Control Solutions**  
Andreas Winardi  
Siemens

**Session 3C**  
**Data Centers**  
**Chair:** Carl Salas, P.E., Founding  
Principal, Salas O'Brien

**2:00 - 2:30pm**  
**Managing Extreme Volatility in  
California Energy Prices**  
Andy Huenefeld  
Kinect Energy Group

**2:30 - 3:00pm**  
**Cutting through Computer Room  
Cooling Complexity**  
Frederick Rebarber  
Vertiv

**3:00 - 3:30pm**  
**Data Center Theory vs.  
Lessons Learned**  
Carl Crizer  
Salas O'Brien

**3:30 - 4:00pm**  
**Lessons Learned from Operating  
a Large Hospital Data Center and  
Infrastructure**  
Ryan Pruitt, Santa Clara Valley  
Medical Center

**Session 4C**  
**Building through  
Commissioning**  
**Chair:** John Salas, P.E., C.E.M.,  
G.B.E., C.B.C.P., LEED AP, Managing  
Principal, Salas O'Brien

**2:00 - 2:30pm**  
**Optimizing Chilled Water  
Systems in Critical Facilities**  
Duane Warren  
Hood Patterson & Dewar, Inc.

**2:30 - 3:00pm**  
**Smart Commissioning at the  
University of British Columbia**  
Zach Danyluk, University of  
British Columbia & Adam Rohloff,  
Altura Associates

**3:00 - 3:30pm**  
**Retrofitting Controls at Stanford  
University's Historic Wallenberg  
Hall: Pneumatic to DDC Upgrade**  
James Sanderson  
Salas O'Brien

**3:30 - 4:00pm**  
**A Case Study, Community Based  
near-ZNE for a Recreational  
Facility**  
Jeff Horn  
SoCalGas

**AEE Energy Events**  
Mark Your Calendars

**AEE** ENERGY  
CONFERENCE & EXPO

**WORLD**



## Washington, DC

**Conference Sept. 25-27, 2019**

**Expo Sept. 25-26, 2019**

Walter E. Washington Convention Center  
[world.aeecenter.org](http://world.aeecenter.org)

**AEE** ENERGY  
CONFERENCE & EXPO

**East**



## Cincinnati, OH

**April 21-22, 2020**

Duke Energy Convention Center  
[east.aeecenter.org](http://east.aeecenter.org)

**AEE** ENERGY  
CONFERENCE & EXPO

**West**



## Seattle, WA

**June 24-25, 2020**

Washington State Convention Center  
[west.aeecenter.org](http://west.aeecenter.org)