PRELIMINARY CONFERENCE PROGRAM

CXENERGY CONFERENCE & EXPO APRIL 6-9, 2020

Join us for the #1 Event in Commissioning, Energy Management, and Building Technology!

> San Diego, California HILTON SAN DIEGO BAYFRONT

"The highest quality Cx and energy conversation I've ever attended."

- Thomas Sockwell, TBE, CxA, TAB Commissioning Services, Inc.







Join Us at CXENERGY 2020!

PROGRAM AT A GLANCE

ТІМЕ	MONDAY, APRIL 6	TUESDAY, APRIL 7	
7:00 am - 8:00 am	Registration for CxA Workshop & EMP Seminar		
8:00 am - 5:00 pm	Commissioning Authority (CxA) Workshop & Exam		
8:00 am - 5:00 pm	Energy Management Professional (EMP) Seminar & Exam		
8:30 am - 3:30 pm		AABC TAB & Cx Seminar	
8:30 am - 4:30 pm	Breakfast and lunch will be provided for all	Mission-Critical Workshop	
5:00 pm - 7:00 pm	pre-conterence workshops and seminars.	Welcome Reception in the Expo Hall	

TIME	WEDNESDAY, APRIL 8	THURSDAY, APRIL 9	
7:00 am - 8:00 am	Registration & Breakfast		
8:00 am - 8:45 am	Opening Plenary Session		
		8:00 am - 11:30 am	Concurrent Tech Presentations
8:45 am - 9:45 am	"Meet & Greet" with Sponsors & Exhibitors		
		11:30 am - 12:30 pm	Brown Bag Lunch
10:00 am - 12:15 pm	Concurrent Technical Presentations	1:00 pm - 3:00 pm	San Diego Airport Technical Tour
12:15 pm - 1:45 pm	Lunch in the Expo Hall		
2:00 pm - 5:30 pm	Concurrent Technical Presentations	1:00 pm - 3:00 pm	UCSD Utility Plant Tour
5:30 pm - 7:00 pm	Reception in the Expo Hall		

Optional Post-Conference Activities NEW



San Diego International Airport (SAN) **Technical Tour**

Thursday, April 9 1:00 pm – 3:00 pm, \$79 (transportation will depart hotel at 12:15 pm and return by 4:00 pm)

After a brief presentation at the Airport Authority's administration building, the group will tour a number of unique operational features at SAN including:

- Central Utility Plant operations
- 100,000 Gallon Stormwater Capture and Reuse System
- Terminal 2 Parking Plaza's Sustainability Features
- On-Site Photovoltaic Solar System
- 4 MWh Battery Energy Storage System
- Airside/Runway Operations and Sustainability

Minimal walking is required.

University of California, San Diego (UCSD) **Utility** Plant Tour

Thursday, April 9 1:00 pm - 3:00 pm, \$79 (transportation will depart hotel at 12:15 pm and return

This VIP tour of the East Campus Energy Park begins with a brief facility overview followed by a walking tour of:

by 4:00 pm)

- 2.5 MW/5MWH electric energy storage
- ARPA-E battery storage demonstration facility
- 2.8 MW fuel cell utilizing surplus methane from Point Loma Wastewater Treatment plant and CHP with 350-ton absorption chiller
- Vehicle to grid demonstrations
- Shell's Level II EV chargers demo
- EDF/PowerFlex EV chargers demo
- Absorption chiller and 6 MW of diesel gensets

Minimal walking is required.

PRE-CONFERENCE PROGRAM



Commissioning Authority Workshop & Exam

Monday, April 6 – Tuesday, April 7 8:00 am - 5:00 pm, \$950

This highly interactive workshop covers both new and existing building commissioning, and includes many group breakout activities where attendees will use project case studies to develop and discuss samples of key commissioning deliverables. The 4-hour, closed-book CxA exam is offered at the end of the second day to prequalified candidates.

Note: Individuals interested in CxA certification must submit a completed CxA Application 21 days in advance.



Energy Management Professional Seminar & Exam

Monday, April 6 – Tuesday, April 7

8:00 am - 5:00 pm, \$950

The New EMP Seminar & Exam were developed to align with the new requirements for ANSI/DOE accreditation. The EMP program is a commissioning-based approach that maximizes energy savings and optimizes building performance. It also provides relevant information about existing building commissioning.

Note: Individuals interested in EMP certification must submit a completed EMP Application in advance.

Welcome Reception in the Exhibit Hall

Tuesday, April 7

5:00 pm - 7:00 pm

Join us in the Exhibit Hall for the official opening of CxEnergy 2020. Enjoy complimentary cocktails and hors d'oeuvres and network with your colleagues while looking over the latest tools and technologies for commissioning, TAB and energy management.



The Energy Management Association cordially invites you to join us for an exciting day at the CxEnergy Open at the Steele Canyon Golf club on Tuesday, April 7. Please see pricing information below:

- Single Player: \$150 Foursome \$600
- Beverage Cart Sponsorship: \$1000
 - (Two opportunities)
 - Entry for One (1) Single player
 - One (1) beverage cart sign displayed on roan beverage cart
 - · Recognition (company name and logo) on al tournament marketing collateral
 - One (1) Goodie Bag insert





Relax. Unwind. Enjoy. Join us for a farewell cocktail at the Hilton Bayfront before we all go our separate ways.



TAB & Cx Seminar for CxAs, Engineers, & TAB Professionals

8:30 am - 3:30 pm, \$250

This series of in-depth, practical presentations include case studies on fan performance and water system re-balance, duct pressure testing, maintaining outside airflow, and taking coil face airflow measurements. These presentations are geared to helping commissioning providers, engineers, and test & balance professionals understand how key aspects of the test & balance process are carried out, why they are important, and what expected results should be.

UptimeInstitute[®]

Introduction to Mission Critical Environments

Scott Good, Global Senior Consultant, Uptime Institute

Tuesday, April 7

8:30 am - 4:30 pm, \$500

This seminar will introduce the concepts and special considerations associated with managing mission critical data center projects. Beginning with an overview of Uptime Institute's Tier Standard, the industry benchmark ensuring data centers are designed, built and operated to meet specific business needs, the course will also cover how to identify and communicate data center needs to upper management and how to properly select performance levels based on intended applications.

Note: attendees will receive credit toward a full accreditation courses in 2020, see www.uptimeinstitute.com for more information.

CXENERGY OPEN Golf Tournament

	Team Sponsorship: \$2000 (multiple opportunities)	
	 Entry for One (1) Foursome 	
nina	 Recognition (company name and logo) on conference and tournament marketing collateral 	
	 Signage on Welcome Table at tournament site 	
I	One (1) Goodie Bag insert	1
	*Note: Rental clubs are available for \$70 onsite.	

REGISTER AT: https://www.cxenergy.com/golf • For questions, contact Anna Kosova: Anna@Commissioning.org

CXENERGY ZOZO PROGRAM WEDNESDAY, APRIL 8

7:00 am - 6:00 p.m. Registration | 7:00 a.m. - 8:00 a.m. Breakfast | 8:00 a.m. - 9:00 a.m. Opening Plenary Session

7:00 am - 6:00 p.m. Registration | 7:00 a.m. - 8:00 a.m. Breakfast | 8:00 a.m. - 9:00 a.m. Opening Plenary Session

CADDLI	
- SAFFF	

Fundamentals of Test & Balance for Engineers, **Cx & Energy Providers**

Jim Hall, P.E., TBE, CxA, Systems Management & Balancing Inc. This practical, information-packed session explains many of the key test & balance issues - from precise specifications, to duct leakage testing, to pump- and fan-curve considerations that, if properly addressed in cooperation with an independent TAB firm, can ensure that any project goes more smoothly.

SAPPHIRE E

Conserving Energy through Building Enclosure Commissioning: What Commissioning Providers **Need to Know**

Elizabeth Cassin, LEED AP, & Fiona Aldous, Wiss, Janney, Elstner Associates

This presentation will discuss what a Commissioning Provider should know to undertake Building Enclosure Commissioning (BECx) with the goal to conserve energy. The presenters will introduce the BECx process and will outline key quality-based tasks that help to achieve a durable, resilient and successful building enclosure to reduce risk and energy use. The speakers will present published guidelines and standards as references for saving energy and provide design and construction phase tasks to address energy usage.

8:45 a.m. - 9:45 a.m. Meet & Greet with Sponsors & Exhibitors - Expo Hall

Critical Facilities - Reaping the Rewards of Building Commissioning

Tony DiLeonardo, CxA, Wick Fisher White

Paul Shoback. Verizon Wireless

The session discusses commissioning of Verizon Wireless's 11:15 a.m. -Network Equipment Center buildings, with particular attention to VzW's strict commissioning standards, functional test 12:15 p.m. procedures and method of procedure (MOP) to ensure their nationwide data center network is operational 24/7. Verification and monitoring provide constant updates for energy savings and maintaining a good power usage effectiveness (PUE). This interactive session will cover situational commissioning, construction, and dealing with issues in a critical environment, as well as VzW's expectations of commissioning in the future.

12:15 p.m. - 1:45 p.m. Lunch In Expo Hall

Evaluating Hybrid Distributed Energy Projects

Peter Lilienthal, Ph.D., HOMER Energy

The cost, performance, and regulatory environment for distributed energy systems have improved of late, and depending on location, reliability requirements, and load profiles, on-site generation using these systems may now be a financially attractive option for many facilities. Hybrid systems are most common, and multiple options contribute to difficulties in analyzing and reducing demand charges. This presentation will describe how to simplify that analysis. showing results for multiple building types in locations with different solar resources, gas prices, and utility rate structures.

Multi-Phased Commissioning on an **International Airport in Aruba**

Kelly Adighije, LEED AP, Baumann Consulting

Queen Beatrix International Airport serves more than 2.5 million passengers annually. The 5-year Gateway 2030 project – the 3:15 p.m. – first major expansion in 20 years, includes an MEP system upgrade, relocation of the Facility Energy Centre and baggage handling system, and the facility's first sophisticated building automation system. This session will cover commissioning the expansion, the existing facility upgrade and associated BMS integration, through a blend of remote platform-based Cx software, and traditional boots-on-the-ground means.

Get Ready for Solar! How to Make your Projects Solar-Ready

Mark Gelfo, P.E., CxA, EMP, LEED Fellow, TLC Engineering Solutions

Not ready for solar? Time to get ready! Codes all over the country are moving towards mandating solar – or solar planning – be incorporated into new buildings. This session will discuss the status of the solar industry, solar requirements in codes, incentives, and how to plan, design, build, and commission your projects today for solar tomorrow.

Role of Building Performance Analysis & Whole Building Air-Barrier Testing in BECx

Krishnan Gowri, Ph.D., BEMP, ASHRAE Fellow, Intertek Inc.

Building performance analysis during early design reviews can help ensure quality and compliance to code requirements on commissioned high-performance building enclosures. This session will highlight the use of THERM, static diffusion analysis, climate analysis and psychrometry principles to identify potential thermal bridging, condensation, and compliance to mandatory energy code requirements. Examples from recent design reviews and whole building air barrier testing will show how BECx requirements and value engineering decisions on material selection and construction sequencing impact performance.

How Does Cybercrime Impact My Business?

Derek Hedrick, Ameritech Data Solutions

Why has Cybercrime become so prevalent? Because it's easy. it's hard to get caught, and it's really profitable, generating more than \$1.5 trillion in 2018 alone. Meanwhile, cybercrime damages for corporations are predicted to reach \$6 trillion annually by 2021, with 78% of surveyed organizations affected by a successful cyber attack in 2018, and a typical recovery cost ranging between \$10,000 and \$100,000 - enough to sink many small and medium-sized businesses. This session will explore how to protect your company from becoming one of them

SAPPHIRE I

San Diego Airport's Strategic Energy Plan in Action

Cogan Semler, San Diego Airport Authority The San Diego Airport drafted a Strategic Energy Plan in 2017 that addresses conservation and efficiency, carbon neutrality, resilience, cost containment, and regional and industry leadership. Goals included reducing both airport energy use and energy cost per passenger by 20% by 2028, with 60% of energy use coming from renewable sources. This session will review on-site solar generation, battery energy storage, chilled water plant optimization, energy use intensity (EUI) targets for new construction, and energy monitoring and metrics.

(See page 2 for optional San Diego Airport Tour)

8:45 a.m. - 9:45 a.m. Meet & Greet with Sponsors & Exhibitors - Expo Hall

As the Pages Turn - A Controls Page Turn

Dave Guberud, CxA, & Rachel Rueckert, P.E., CxA Ring & DuChateau

What is the best way to verify that everyone on the commissioning team understands the project control submittal with its sequences and the interdependencies in the exact same way? A controls page turn meeting! Arguably the most important benefit is communicating in person in a face-to-face meeting, where you can most effectively gauge truthfulness and buy-in. The end of the session will include a "role play" of a page turn facilitated by the presenters.

12:15 p.m. - 1:45 p.m. Lunch In Expo Hall

10:00 a.m. -

11:00 a.m.

11:15 a.m. -

12:15 p.m.

2:00 p.m. -

3:00 p.m.

3:15 p.m. -

4:15 p.m.

ASHRAE 90.1 Cx Requirement Changes and **Comparison to the Int'l Energy Efficiency Code**

Reid Hart, P.E., Pacific NW National Labs

ASHRAE Standard 90.1-Energy Standard for Buildings Except Low-Rise Residential Buildings-was recently overhauled to clarify commissioning requirements for the 2019 edition. An important expansion of typical commissioning work is review of the design for compliance with 90.1 requirements. This session will explore the boundaries between a "full" commissioning project and items required in 90.1, as well as the costeffectiveness summary used to support committee approval of the standard. In addition, comparisons to the current version of the International Energy Efficiency Code will be made.

Optimized Potable Water Systems: Preventing Legionella in New & Existing Facilities Greg Swafford, CPD, GF Piping Systems

Utility companies are only responsible for drinking water quality up to the domestic water service entrance (water meter). Once inside the building, drinking water guality is the owner's responsibility. Bacterial growth within the building water distribution piping can result from water temperatures in the growth range for bacteria, stagnation associated with water conservation efforts, and usage patterns that lead to biofilm formation. Drinking water installations in buildings therefore must be carefully planned, designed, installed, and commissioned to ensure safety through the life of the system.

2:00 p.m. -3:00 p.m.

4:15 p.m.

10:00 a.m. -

11:00 a.m.

SAPPHIRE M

Don't Shoot the Messenger: Your Installed Meter Data May be Telling a Larger Story

Barry Dunham, P.E., ONICON Incorporated

There is often suspicion of high-end measurement tools when values don't add up on a project, but if the installation and applications are good, it's perilous to ignore the data and blame the meters without investigating whether other factors are at play. Using case studies, this session will explore why and how accuracy matters; how meters can predict loss and potential maintenance; what to look for when the numbers don't match; and how serial communication helps to alleviate discrepancies between BAS and TAB.

Chase Center Arena & Mixed-Use Development: High Performance Design at Mission Bay

Clark Denson, P.E., CEM, BEMP & Eric Sheffer, LEED AP SSRCx, and Jackie Ventura, Golden State Warriors

The ambitious Chase Center Arena and Mixed-Use Development Project in San Francisco required an iterative and collaborative design process to achieve the building performance and sustainability goals of the owner, the Golden State Warriors organization. Energy modeling was critical to achieving compliance with local codes, LEED Gold certification, and earned incentives through the Savings By Design program. This presentation will provide perspectives from the owner and design team as to how the project goals were achieved.



PANEL DISCUSSION

HyperScale Data Center **Commissioning and Construction (2 hour)**

Facilitator: Derek De Jesus, CxA, Google

This session will bring together experts from industry heavyweights like Google, Facebook, and others on the owner side, as well as Cx providers and contractors, for a lively discussion on commissioning facilities that are now critical to virtually every aspect of our economy and our lives.

Topics will include:

- · What qualifications data center owners look for in Cx providers
- How data center Cx has evolved
- · What data center design and construction changes might be on the horizon
- The challenges to delivering more efficient data centers

SAPPHIRE A

Bob Knoedler, P.E., CxA, EMP, Hanson Professional Services

The ability of critical systems to anticipate, resist, respond,

natural disasters, to intentional attacks, to human error - can

Jim Magee, CxA, EMP, Facility Commissioning Group

adapt, and recover from a failure or disturbance - from

have huge consequences, and owners of critical facilities

are adding formal resiliency plans to their risk management.

This presentation will explore commissioning's role including

appropriate metrics, examples of vulnerabilities facing facilities

today, and discussion of several case studies where additional

planning could have mitigated disruptive or catastrophic events.

SAPPHIRE E

Commissioning for Reliability and Resiliency -**Overcoming Reality: Planning for Successful** Lighting Control Commissioning

John Busch. LEED AP BD+C. CLCATT.

Leviton Manufacturing Co., Inc.

Successful lighting controls commissioning begins with properly developing design intent and owner requirements. In reality, energy codes are complex and corporate specifications often exceed or are at odds with code mandates. These issues must be considered to ensure a quality environment, while meeting functional testing and limits set forth in these codes. What to do? Is it possible? Could functional testers be "Code Compliance Coaches" assisting to meet code guidelines? And even application of exemptions!

SAPPHIRE

Children's Hospital of Atlanta Case Study -**Highly Effective Commissioning**

John McFarland, Working Buildings Jacob Terry, CxAlloy

This discussion of an "above and beyond" commissioning effort on two new medical office buildings for Children's Healthcare of Atlanta puts special focus on how additional effort did not sacrifice project profitability. The session will show how the commissioning firm exceeded stakeholder expectations (and took on more responsibility as the projects progressed) by drawing on experience with past medical facilities and fully leveraging commissioning management software.

5:30 p.m. - 7:00 p.m. Reception in Expo Hall

5:30 p.m. - 7:00 p.m. Reception in Expo Hall

Lessons Learned

THURSDAY, APRIL 9

7:00 a.m. - 6:00 p.m. Registration | 7:00 a.m. - 8:00 a.m. Breakfast

4G, 5G, Data Analytics, Digital Collaboration and the Modern Delivery of Cx Services

Jim Adams, P.E., CxA, EMP, & Matt Adams, CxA, EMP Facility Commissioning Group

This session explores current IoT protocols that will enable the anticipated application of Mesh Networks, Cloud, Fog and even 8:00 a.m. -Mist Computing that will be integral to the built environment 9:00 a.m. as 5G and WiFi6 technologies are deployed. Topics include Industrial Internet of Things (IIoT), M2M Machine to Machine (M2M) communications and convergent technologies that impact building systems and commissioning professionals' approach. The impact of increasing IT Integration will be addressed through previously unavailable collaboration strategies and Methods of Procedure (MOPs).

Health Care Emergency Power Supply Systems Commissioning: Clearing Coordination Hurdles

Jason Perigo, CxA, SSRCx

9:15 a.m. -10:15 a.m.

4:30 p.m. -

5:30 p.m.

Case studies from four different hospital commissioning projects will illustrate identifying and managing obstacles when planning and implementing functional performance testing of emergency power supply systems for new and existing hospitals. The coordination effort to achieve successful functional testing of a large hospital system can be overwhelming and time consuming, but with the right planning and attention to detail it can be rewarding and valuable to

Commissioning Smoke Control Systems: Lessons Learned

Michael Mantai, P.E., CCP, System WorCx

10:30 a.m. -11:30 a.m.

This presentation will discuss suggested best commissioning practices for smoke control systems. Case studies from projects involving hospitals, a prison, and an atrium smoke control system will demonstrate both the pressurization and exhaust methods of smoke control. Lessons learned will cover issues related to design to inspection to functional testing, and the presentation will include requirements for Smoke Control

Special Inspections required by the International Building Code

Stevan Vinci, CET, LEED Fellow, Morrison Hershfield

Michael Flemming, P.E., CxA, CEM, Interface Engineering

Owner's Project Requirements (OPRs) are too often given insufficient attention -- created to match the design, copied from project to project, or forgotten after the design phase. This session will discuss OPRs as important tools at a time of increased scrutiny (through local codes and rating systems) on performance related to resiliency, health, energy and carbon. In this hands-on session, the audience will help develop an OPR as the presenters facilitate and discuss the compromises and

Signal to Noise Ratio: Can You Hear (See) Me Now? Wayne A. Dunn, P.E., E.W. Dunn

This session describes technical advances and challenges for commissioning modern security systems, and how they are evolving. Today's systems promise wireless communications, visual recognition and audio acuity sensed by a variety of triggers. To get a signal and react to it, how much/what kind of "noise" information is necessary, and how much is tolerable? How do we plan for security, and develop Owners' Project Requirements (OPR) that result in accurate design and construction specifications for the safety of building occupants?

Evolution of MBCx in an IOT Enabled Environment Dewayne Collins, CEM, Siemens

The role of technology within an Existing Building Commissioning strategy continues to evolve, with Monitoring-Based Commissioning emerging as a differentiator to traditional EBCx projects. The strategic benefit of analyzing large volumes of historical data to identify poor performance and implement improvement measures based on this data is clear, but successful program deployment can be challenging. This presentation will focus on FDD, EBCx, and lessons learned that equate to successful implementation of an MBCx program.

7:00 a.m. - 6:00 p.m. Registration | 7:00 a.m. - 8:00 a.m. Breakfast

VFD Motors: Induced Shaft Voltage, the Causes, Effects and Solutions

Tom Hedrick, P.E., CxA, EMP, International Commissioning Engineers, Inc.

This session – based on peer-reviewed research, field testing 8:00 a.m. and performance-based solutions – will focus on the shaft voltage that is induced via variable frequency drives, the main causes, magnitude of the problems and possible solutions to this issue, which reduces the life expectancy for VFD motors. Case study measurements, documentation and analysis will help attendees learn how to prevent shaft voltage on bearings and motors to reduce maintenance issues and capital cost expenditures.

Succeed When You Leave: Strategies for Ensuring Persistence of Savings on Energy Projects

Paul Raschilla, EMP, Acceptance Engineering Drawn from the Energy Management Association's new O&M personnel training seminar created for utility incentive programs, this presentation demonstrates how to develop a plan to defeat drift and ensure continuous savings in energy projects. Topics covered include producing an M&V plan, training O&M staff, ongoing Cx, implementing CMMS/FDD programs, and developing serviceable documentation. This session will show energy managers how to create existing and ongoing value for building owners.

Ensuring High Performing Pre-Engineered Metal **Buildings Through Rigorous BECx**

Cathleen Crabb, AIS, City of San Antonio TCI, Vertical Division Mike W. Lackey, P.E., CxA, LCCx, LLC

The City of San Antonio has a voluntary program, beyond code, to ensure high performance of even utilitarian structures. Five pre-engineered metal buildings on two campuses were air barrier envelope tested to determine if performance was equivalent to a conventional structure. After building enclosure commissioning and air barrier testing, the buildings far exceeded minimum air barrier air leakage requirements, performing nearly at ASHRAE "Tight Building" Standard levelproviding significant energy savings well into the future.

as well as NFPA 92.

9:15 a.m. -10:15 a.m.

10:30 a.m. -

11:30 a.m.

9:00 a.m.

4:30 p.m. -

5:30 p.m

clients.

implications of the group's decisions.

Make OPRs Great Again

SAPPHIRE M



How Monitoring-Based Commissioning Changes the Cx Business Model

Darren Draper, P.E., CxA, Epsten Group Derek McGarry, P.E., PointGuard Dewayne Collins, CEM, Siemens

In the context of deploying automated fault detection on a university campus to deliver Monitoring-Based Commissioning services, this presentation discusses how MBCx changes the business model for Cx service providers. With speakers representing a Cx provider, a software firm and a controls company, the session will review how MBCx compares to traditional Cx or RCx approaches.



Building Energy Efficiency Standards Roundtable: California Title 24. What's Next in Commissioning & Energy Management (2 hour)

Moderator: Jim Kelsev, KW Engineering Robert C. Alpers, P.E., CxA, Alpers Engineering Group LLC John Busch. Leviton Craig Ochoa, Morrow-Meadows Chris Olvera, Building Standards Office, California Energy Commission

Building Energy Efficiency Standards have been integral to California's energy efficiency success, weathering massive change over the past 40 years. The legacy approach to code development faces new marketplace challenges, as more renewable generation deploys, and building professionals demand future-proof codes to keep up with evolving technology. This session offers a highly interactive roundtable, bringing together attendees and a range of building professional stakeholders to explore the challenges and opportunities in future California energy code development. Special attention will be devoted to the commissioning provisions of Title 24.

Advanced Energy & Water Metering: Using Your Data for More Than M&V

Amy Pastor, P.E., CxA, LEED AP & Reza Hosseini, P.E. EXP How do you plan for successful implementation of measurement and verification using energy and water metering? By trending energy and water usage, facility teams can use historical and calibrated data for both preventative and predictive maintenance. This session also addresses the importance of commissioning design reviews of meter diagrams, ensuring that LEED or code-required end uses are effectively captured at the BMS. Recent project examples will guide owners, engineers and commissioning agents on implementation for new and existing properties.



EXHIBITORS:

- Accuenergy
- Adventech, LLC
- Ameritech Data Solutions
- B.E.S. Plus Tech LLC
- BAS Services & Graphics, LLC
- BlueRithm
- Building Start
- Building Fit
- CopperTree Analytics

- CxAlloy
- Electro Industries/ GaugeTech
- EMAT
- Energy Focus, Inc.
- Evergreen Telemetry
- Facility Grid
- GMC Commissioning
- Gresham Smith
- IIBEC

- IMEG Corp.
- International Service Partners, LLC
- Intertek
- IR-TEC America
- National Fenestration Rating Council
- NuEnergen, LLC
- ONICON Incorporated/Air Monitor Corporation

 Onset – HOBO Data Loggers

- RMF Engineering
- Siemens
- SkyFoundry
- Spirotherm
- Tosibox
- TSI, Inc.
- TSI Energy Solutions
- UNIBES

SUPPORTING ORGANIZATIONS:













MEDIA PARTNERS:









CXENERGY 2020 PRESENTED BY



The Associated Air Balance Council (AABC) is dedicated to the advancement of independent, thirdparty testing and balancing. The association's mission is to certify highly qualified, independent test & balance agencies, and their personnel.

AABC Group

The **AABC Commissioning Group (ACG)** is dedicated to the advancement of independent, third-party commissioning professionals. ACG strives to promote a better understanding of the commissioning process and to educate, train, and certify qualified individuals.



The Energy Management Association (EMA) is dedicated to advancing the quality of energy management for the benefit of the building owner. EMA is committed to the certification and training of Energy Management Professionals (EMPs).