



# TEXAS

GULF COAST REGION

**7th Annual USGBC Texas Energy Summit**  
Presented by the Texas Gulf Coast Region

**Thursday, October 12, 2017**  
**Norris Conference Center**  
**at City Centre**

First 100 Attendees to Receive  
our Lunch Keynote Speaker's  
Book by John Hofmeister

Event Program sponsored by

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## Letter from Jonathan Kraatz



Thank you for attending the 2017 USGBC Texas Energy Summit. I welcome you on behalf of the members of the USGBC Texas Chapter.

Our Energy Summit Committee have put together a great range of sessions and case studies covering vastly different projects and technologies to generate new ideas and discussions. Each year's conference has a unique way of coming together, and this year Mother Nature threw us all for a loop. That aside, we have a great event planned.

While recent events put a new lens on everything, our Chapter Mission is to transform the way commercial buildings, homes and communities are designed, built, maintained, and operated in Texas. Thank you for helping us achieve this bold vision.

***Jonathan Kraatz, USGBC Texas, Executive Director***

## Letter from Andre Lehr



Welcome to the 7th Annual USGBC Energy Summit presented by the Texas Gulf Coast Region. We are excited to provide this year's incredible lineup of speakers. We want our program to accomplish several important services for your benefit this year. Our topics cover: successful case studies of energy efficiency from local organizations, leading edge technology on energy efficiency, high performance design and where the market is advancing in this arena; optimized operations and best practices that many of the biggest projects in the region are utilizing to operate complex facilities for half the energy. Key in on high performance strategies for design of new facilities.

Aside from that, we just want to have some fun learning together. Therefore, it seems most appropriate to end the day with spirits and bites while the freeways around us decongest from the rush hour traffic of our excellent Houston highway system.

Please enjoy the program today, and stay around for the networking session afterwards. We'd love to get to know our Energy Efficiency Steward community better, and there's no better time to do it!

***Andre Lehr, Energy Summit Committee Chair***



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## 8:30 AM to 9:40 AM BREAKFAST KEYNOTE SPEAKER

**Lisa Gonzalez**  
**HARC President and Chief Executive Officer**

Lisa Gonzalez is the President and Chief Executive Officer of the Houston Advanced Research Center (HARC). She is responsible for the strategic direction of HARC and its research programs which are designed to facilitate sustainable management of air, energy and water resources. Lisa recently oversaw the successful design and construction of HARC's LEED Platinum headquarters located in The Woodlands, Texas. She served previously as Vice President and Chief Operating Officer of HARC from 2012-2016. In addition to leading HARC, Ms. Gonzalez is active in research focused on community and climate resilience, stakeholder engagement, and the analysis and dissemination of data concerning the health and productivity of Texas Gulf Coast bays, estuaries and watersheds.

Ms. Gonzalez holds a Master of Science in Environmental Management from the University of Houston – Clear Lake and a Bachelor of Science in Marine Fisheries from Texas A&M University at Galveston. She is Vice Chair of the Gulf and South Atlantic Regional Panel on Aquatic Nuisance Species; serves on the Monitoring and Research Subcommittee and the Invasive Species Working Group of the Texas Commission on Environmental Quality's Galveston Bay Estuary Program; and the Technical Advisory Committee for the Texas General Land Office. Ms. Gonzalez also serves in an advisory capacity to other nonprofit organizations including, the Advisory Council of the Galveston Bay Foundation and the Board of Directors for the Bayou Preservation Association.

## BREAKFAST PRESENTATION

### **Texas Energy and Resilience Trends from a Building Owner's Perspective**

Lisa Gonzalez will be discussing the planning and design of the energy systems in HARC's new LEED Platinum headquarters and how decisions were influenced by current trends in energy, water and resilience.

## 9:50 AM to 10:40 AM

### CASE STUDIES TRACK



#### RICE SUSTAINABILITY MASTER PLAN

**Presented by Richard Johnson**

Mr. Johnson will discuss the Rice Integrated Climate and Energy Master Plan (RICEMaP) and broader efforts to reduce energy consumption and greenhouse gas emissions at Rice University to advance their core values. Rice University recognizes the critical importance of sustainability. Its present needs must be met while protecting the interests of future generations. The Shell Center for Sustainability, the Center for the Study of Environment and Society, the Environment & Energy Systems Institute and student organizations should be utilized to foster environmental consciousness and mitigate the University's ecological footprint.

### TECHNOLOGY TRACK



#### HIGH EFFICIENCY CHILLERS

**Presented by Brett Monteleone**

As energy costs have again increased, and environmental awareness has come to the industry forefront, use of energy recovery has again peaked the interest of the market. Learn how heat recovery can impact your operations and become a viable option.

### OPTIMIZED OPERATIONS TRACK



#### GRESB

**Presented by Mychele Lord, Frank Ortiz and Tema Yaravitz**



GRESB is an industry-driven organization committed to assessing the ESG (Environmental, Social, Governance) of real estate assets globally. More than 200 members, of which about 60 are pension funds and their fiduciaries, use the GRESB data in their investment management and engagement process, with a clear goal to optimize the risk/return profile of their investments.



Hear from experts in Real Estate: What is GRESB? What is driving its adoption? Who should participate? How does it impact me as a real estate professional/service provider?

### HIGH PERFORMANCE DESIGN TRACK



#### POWER OVER ETHERNET [POE]

**Presented by Joe Rozick**

Power over Ethernet [PoE] is a technology that enables your ethernet cables to carry power as well as data. Network cabling instantly becomes more useful, as PoE eliminates the need to run high voltage power to IP end-point devices.

This presentation will cover not only the changing of light technology but the benefits of designing a smarter building. With a smarter building the owners will now be able to use this data for future projects to help the employees well-being while saving energy.

Learn how PoE is changing the market.



**11:00 AM to 11:50 AM****CASE STUDIES TRACK****NET ZERO SCHOOLS****Presented by Al Hernandez**

Given the opportunities, K-12 schools are a good choice for accelerating the market transformation to zero energy construction. They also have good replication potential, strong stakeholder involvement, prominence in their communities and offer a unique opportunity to educate and shape the views of a new generation. On average, zero energy schools can use between 65-80 percent less energy than conventionally constructed schools and the remaining energy required is supplied by renewable energy. In addition to the cost savings from reduced energy usage that can be realized from Zero Energy construction, this approach can also help prevent greenhouse gas emissions and improve the students' learning environment.

**TECHNOLOGY TRACK****ABSORPTION CHILLERS****Presented by Kevin Fu**

There are inherent efficiencies using absorption chillers some of which include; the process can use either low grade steam, hot water, or direct exhaust gas in cogeneration application to drive the absorption process; minimal moving parts which means that they make less noise and have fewer vibrations than mechanical chillers; and typically only use 2 – 9% of the electricity that is usually required for mechanical chillers. This means that facilities can avoid peak demand charges and high time-of-use electricity rates.

**OPTIMIZED OPERATIONS TRACK****OPTIMIZED WATER/VAV AIR FLOW****Presented by Mark Seibert**

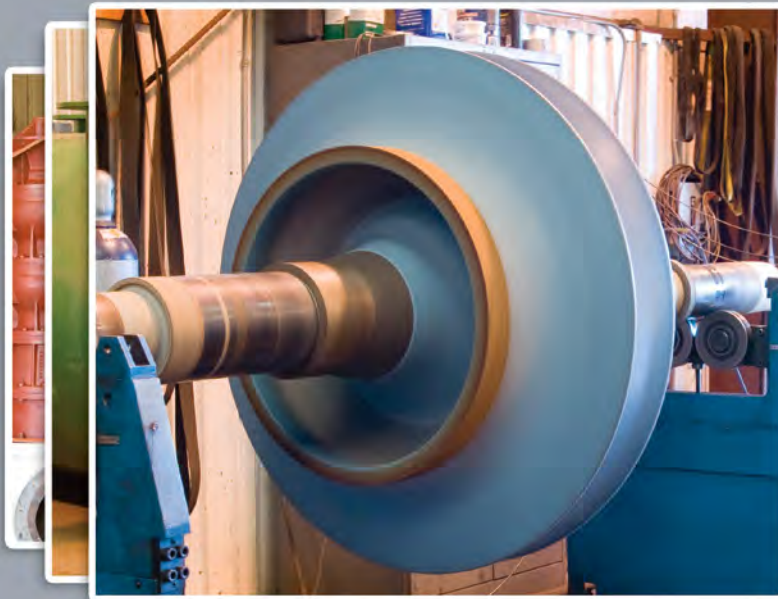
Water conservation technologies and strategies are often the most overlooked aspects of a whole-building design strategy. However, the planning for various water uses within a building is increasingly becoming a high priority along with optimizing VAV systems. These systems go hand in hand and can greatly improve operations and energy efficiency if optimized in unison.

**HIGH PERFORMANCE DESIGN TRACK****NET ZERO CONSTRUCTION****Presented by Landry Watson**

DPR'S NET-ZERO ENERGY LIVING LABS. A highly technical builder that specializes in complex and sustainable projects, DPR is at the forefront of the next step in sustainability—Net-Zero Energy (NZE) buildings, which produce as much or more energy onsite as they consume on an annual basis. Additionally, we've made the commitment that our own portfolio will be the dynamic and living labs where we can implement and evaluate innovation for our customers and highlight the true lessons we've learned through the process of these deep green projects. Systems and sustainable measures tested in our living labs allow for replication and inspiration on other projects and the integration of more efficient technologies that emerge in the future. This session will highlight the process and strategies implemented in our current portfolio and will share unvarnished lessons learned from those projects.

**NOTES**

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**NOON to 1:10 PM**

## **LUNCHEON KEYNOTE SPEAKER**

**John Hofmeister**

**Citizens for Affordable Energy, Washington, D.C.**

**Founder and Chief Executive**

**Shell Oil Company, Houston, Texas**

**Former President**

John Hofmeister is a key member of the United States Energy Security Council, a bipartisan group which includes former Secretary of State George P. Shultz and two former secretaries of defense, William J. Perry and Harold Brown, as well as three former national security advisers, a former C.I.A. director, two former senators, a Nobel laureate, a former Federal Reserve chairman, and several Fortune-50 chief executives. Upon retirement from Shell Oil Company in 2008, Mr. Hofmeister founded and heads the not-for-profit (501(c)(3), nation-wide membership association, Citizens for Affordable Energy. This Washington, D.C.-registered, public policy education firm promotes sound U.S. energy security solutions for the nation, including a range of affordable energy supplies,

efficiency improvements, essential infrastructure, sustainable environmental policies and public education on energy issues. As Shell President, Hofmeister launched an extensive outreach program, unprecedented in the energy industry, to discuss critical global energy challenges. The program included an 18 month, 50-city engagement program across the country during which Hofmeister led 250 other Shell leaders to meet with more than 15,000 business, community and civic leaders, policymakers, and academics to discuss what must be done to ensure affordable, available energy for the future.

John Hofmeister is the author of *Why We Hate the Oil Companies: Straight Talk from an Energy Insider* (Palgrave Macmillan, 2010).

## **LUNCHEON PRESENTATION**

**Making Energy Choices in an Era of Incessant Change**

**After the luncheon presentation...  
Get your book signed  
by John Hofmeister.**



## 1:30 PM to 2:20 PM

### CASE STUDIES TRACK



#### COH PERMIT OFFICE EBOM V4

**Presented by Steve Stelzer and David MacLean**



LEED O+M v4 and Arc Platform as tools to facilitate accountability in public buildings. How do you operate a LEED certified building to maintain and optimize the original design performance? Why should this be any different than how we normally conduct business? Join us as we walk through the process of how the City of Houston is using the LEED v4 Building Operations and Maintenance (O+M) rating system to evaluate opportunities for procedural efficiencies and measured outcomes. We will also share how the City of Houston plans to utilize Arc, a new technology platform designed to connect sustainability actions and facilitate transformation in the built environment.

### TECHNOLOGY TRACK



#### LIQUID DESICCANTS

**Presented by David E. Robertson**

Since the 1930s, liquid desiccants have been used in industrial dehumidifiers. Liquid desiccants are solutions that have a high affinity for water vapor. This property is the key to creating cooling systems that dehumidify air without over-cooling. Learn more about how liquid desiccants are used today to help systems be more efficient and reliable.

### OPTIMIZED OPERATIONS TRACK



#### MD ANDERSON

**Presented by Tim Peglow**

Improving demand-side energy efficiency by focusing on smart operation and maintenance programs including: staff engagement and training, building guidance/codes: ASHRAE 90.1 and 170, advanced energy design guides, DOE retrofit guides, process team driven, metric based, LEAN, 6 Sigma, Quick wins, 3 or 4 initiatives at a time, pilot projects on major changes, risk-taking; systems: air, lighting, hydronic, building automation; equipment, maintenance program aligned with energy efficiency. Mr. Peglow shares the best management practices used to optimize operations and energy use at MD Anderson facilities.

### HIGH PERFORMANCE DESIGN TRACK



#### ENERGY MODELING

**Presented by Dr. David Claridge**

Whole-building simulation is increasingly used in the design of building heating, ventilating and cooling (HVAC) systems but has seldom been used subsequently to optimize the operation of the building. These uses of simulation typically require that the inputs of the simulation program be adjusted so the simulated values of heating and cooling closely match the measured consumption values, a process typically called "calibrating" the simulation to the measured performance. Eight different applications of the use of calibrated simulation in the EBCx process will be described with half a dozen examples to illustrate how calibrated simulation is being used for practical optimization of building operation.

**2:40 PM to 3:30 PM****CASE STUDIES TRACK****NAVIGATING FINANCING OPTIONS FOR ENERGY EFFICIENCY****Presented by Joe Indvik**

Building owners, operators, and contractors are increasingly using third-party financing to get energy efficiency and renewable energy projects done. With many financing structures available, it can be difficult to cut through the complexity to find a financing solution that works for you. In this presentation, Joe Indvik of JDM Associates will introduce the Better Buildings Financing Navigator, a Department of Energy tool that helps organizations find financing solutions that fit their unique needs. Joe will also discuss key trends in the energy efficiency financing market, survey the current landscape of financing structures, and discuss future outlook.

**TECHNOLOGY TRACK****THERMAL STORAGE****Presented by Lynn Crawford, Tim Kearns and Steve Swinson**

A vital technology for securing deep greenhouse gas reductions, thermal energy storage has succeeded in the field for decades, but still hasn't achieved widespread deployment. Precooling an insulated vat of liquid can chop an electricity bill and reduce peak load, as Enwave and TECO have done. Such systems address a decarbonization challenge that cleaner grid power alone cannot touch. Buildings consume 70 percent of the electricity produced in the U.S., and emit 40 percent of the nation's carbon emissions. Any holistic attempt to tackle climate change must confront building-sector energy use.

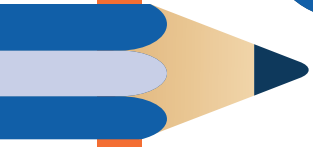
**HIGH PERFORMANCE DESIGN TRACK****THE DECEPTIVE METRIC****Presented by Kapil Upadhyaya and Alfonso Hernandez**

Through unique stories from university campuses, this presentation will demonstrate hidden limitations and potent opportunities that elude our common perception of sustainability metrics. Facility Managers are familiar with using metrics like 'Energy Use Intensity' and '% total expenditures' to benchmark sustainability performance. What if you were to know that these metrics fail to accurately capture sustainability performance?

Metrics are more nuanced than what we are used to; sometimes these come with caveats that we forget; and sometimes metrics start measuring the opposite of what these are meant to. This presentation will use measurements and simulation results from various university campuses to demonstrate how easily metrics can deceive the very purpose that these were created for. Metrics discussed include: EUI, % energy savings, peak cooling load, rainwater volume, space utilization and comfort.

**3:45 PM to 4:45 PM****PANEL DISCUSSION WITH REAL ESTATE LEADERS.  
HEAR WHAT THEY HAVE TO SAY.****Moderated by Jonathan Wilson****SEE THE DETAILS  
ON NEXT PAGE...**

# NOTES





## **ENERGY PERSPECTIVES PANEL**

Practical perspectives on energy efficiency and energy decision making in an evolving environment of priorities, sustainability and historically low energy prices.

**3:45 PM to 4:45 PM**

**Followed by Happy Hour**

## **MEET THE PANELISTS**



**Jen Suddreth**  
Group Manager  
JLL



**David Burnes**  
Managing Director, Engineering  
CBRE Asset Services, Southeast Region



**Tony Clasen**  
National Director of Operations  
Accesso Services



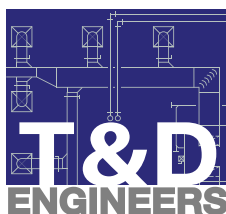
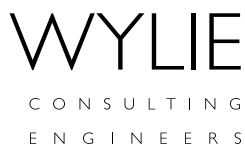
**MODERATED BY:**  
**Jonathan Wilson**  
Senior Manager of Commercial Real Estate Solutions  
Schneider Electric Energy and Sustainability Services

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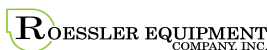
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**4:30 PM  
TO 7:30 PM**  
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Network with  
industry leaders.



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Thank you to all the sponsors, speakers and volunteers  
who have made this event possible.

**HOPE TO SEE ALL OF YOU IN OCTOBER 2018!**

Any questions, suggestions, or sponsorships - please connect with  
[debra@nbizmarketing.com](mailto:debra@nbizmarketing.com).

*Thank You*