



# EUEC 2022

500+  
Attendees

150+  
Speakers

50+  
Exhibitors

8★  
Technical  
Tracks

October 5-7, 2022  
Westin La Paloma Resort  
3800 East Sunrise  
Tucson, AZ 85718

**EUEC 2022:** The 25th Annual Energy, Utility & Environment Conference & Charge Expo was held October 5 to 7, 2022 at the Westin La Paloma Resort in Tucson Arizona.

**150 Speakers** made 20-minute PowerPoint presentations in 8 parallel tracks (A to J)

Eight technical tracks were held concurrently from 7:30 am to 12 pm and 2 pm to 4 pm each day.

**50 Exhibiting Companies** networked with 500+ delegates during dedicated lunches (12 - 2 pm) & reception (4 -6 pm) held in the exhibit hall.

**ON-DEMAND ACCESS to EUEC 2022**  
150 Presentations in 25 sessions

## EUEC On-Demand

- Download Video, Pdf & Audio
- View 150 Recorded Presentations
- Access Attendee List to Network

### Joining the App

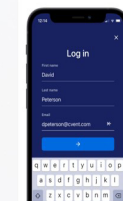
- Connect with Attendees
- View Exhibitor Profiles; Setup Meetings
- Track Sessions & Meet Speakers
- If eligible, watch presentations On-Demand for 90 days after the event

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- 4 Verify your account. You'll either receive an email or text message containing a verification code. Read it then return to the browser/app page, enter the code and click Log In.
- 5 Choose 1 role. You will only need to re-verify your account if

### MISSION STATEMENT

EUEC facilitates information exchange and fosters cooperation between industry, government, and regulators for the protection of our environment & energy security.

Where do  
we go in  
2024?



E-Mail your preference to [info@euec.com](mailto:info@euec.com)

26th Annual  
**EUEC2024**  
ENERGY, UTILITY & ENVIRONMENT CONFERENCE  
FEBRUARY-MARCH, 2024

## PROGRAM BROCHURE

Listed below is the schedule and agenda for EUEC 2022

150 speakers presentations in eight tracks.

Video, PDF and audio of the recorded presentations will be available to download and view October 18, 2022.

The On-Demand feature allows access to download and view all the speakers presentations from EUEC 2022.

### Keynote Speakers

Wednesday, October 5th, 2022  
Murphey Meeting Room



#### HOST ELECTRIC UTILITY WELCOME & TEP'S PATH TO SUSTAINABLE ENERGY

Susan M Gray — 5:00 pm - 5:30 pm

President and CEO, Tucson Electric Power and UniSource Energy Services



#### MAJOR TECHNOLOGY DEMONSTRATION PROJECTS AT NETL: PAST & FUTURE

Thomas A. Sarkus — 5:30 pm - 6:00 pm

Science & Technology Strategic Plans & Programs, National Energy Technology Laboratory, U.S. Department of Energy



The U.S. DOE and NETL has co-funded more than 80 major fossil energy and carbon management demonstration projects since 1980s. The presentation will include Carbon Capture & Storage and future funding opportunities for major demonstrations and other large-scale projects relevant to DOE's fossil energy and carbon management priorities, for example those stemming from the Bipartisan Infrastructure Law, will be summarized.



#### HIGHLIGHTS OF EUEC 2022 & CHARGE EXPO

Prabhu Dayal — 6:00 pm — 6:15 pm

Chairman, Energy, Utility, Environment Conference, & Charge Expo





# TRACK A

## UTILITY POLICY REGS, STRATEGIES, PERMITS, COMPLIANCE

A1

### Utility Policy Regulation Strategies

Oct 6, 2022

7:30 to 9:30 am

7:30 to 7:50 AM



Edison Electric Institute

John Kinsman CHAIR

ABSTRACT

A 1.1 THE TRANSITIONING ELECTRIC POWER SECTOR

7:50 to 8:10 AM



HISER JOY

Eric Hiser

ABSTRACT

A 1.2 A LOOK AT THE BIDEN EPA'S SOURCE SPECIFIC DETERMINATIONS: TRENDS

8:10 to 8:30 am



AMERICAN GAS ASSOCIATION

Sapna Gheewala

ABSTRACT

A 1.3 THE ROLE FOR NATURAL GAS UTILITIES IN A CLEAN ENERGY FUTURE

8:30 to 8:50 am



U.S. DEPARTMENT OF ENERGY  
NATIONAL ENERGY TECHNOLOGY LABORATORY

Tom Sarkus

ABSTRACT

A 1.4 LESSONS LEARNED FROM MAJOR PROJECTS – SOLUTIONS FOR TODAY | OPTIONS FOR TOMORROW

8:50 to 9:10 am



SMG ENVIRONMENTAL SERVICES

Greg Demmitt

ABSTRACT

A 1.5 FRAMING TO CLASSIFY ISSUES AND MANAGE CONFLICT

A2

### Modeling | Regional Haze | CCUA

Oct 6, 2022

10 am to 12 pm



TRC

Gale Hoffnagle  
CHAIR

ABSTRACT

A 2.1 ADVANCES IN REGULATORY AIR QUALITY MODELING



Vinson&Elkins

Matthew Dobbins

ABSTRACT

A 2.2 MANAGING PERMITTING RISKS IN CARBON CAPTURE AND SEQUESTRATION PROJECTS



Trinity Consultants

Disha Gadre

ABSTRACT

A2.3 REGIONAL HAZE IS GETTING CLEARER



SCS ENGINEERS

Charles Hostettler

ABSTRACT

A 2.4 CCUS SITE SELECTION: LOCAL SITING CONDITIONS AND PROJECT FINANCIALS



WZI INC.

Jesse Frederick

ABSTRACT

A 2.5 UTILITY ADAPTATION IN A POST-MITIGATION ENVIRONMENT

A3

### NSR | Permits | Compliance | Regulations

Oct 6, 2022

2 pm – 4 pm



RTP Environmental Associates, Inc.

Gurinder Saini

ABSTRACT

A 3.1 NSR ISSUES AND RECENT DEVELOPMENTS



Olsson

Amanda Miller

ABSTRACT

A 3.2 ENVIRONMENTAL PERMITTING AND SITING FOR UTILITY-SCALE RENEWABLES



SCS ENGINEERS

Kacey Garber

ABSTRACT

A 3.3 TESTING AND MONITORING PLANS FOR CO2 STORAGE PROJECTS: MSW AND CCR



ENCAMP

Luke Jacobs

ABSTRACT

A 3.4 EMBRACING DIGITAL TRANSFORMATION FOR PROACTIVE ENVIRONMENTAL COMPLIANCE



The Law Office of C. William Smalling, Jr.

William Smalling

ABSTRACT

A 3.5 STREAMLINING THE CAA – HOW IT CAN HELP THE NEW ADMINISTRATION

# TRACK B

## CEMS, EMISSION TESTING, MONITORING, MODELING, REMOTE SENSING

B1

### CEMS | Sampling | Emissions | FTIR | Monitoring

Oct 6, 2022

7:30 am to 9:30 am



PASS

Wade Day

ABSTRACT

B 1.1 CEMS PREVENTATIVE MAINTENANCE UTILIZING IOT AND PREDICTIVE ANALYTICS



UNIVERSAL ANALYTICS

Bob Bertik

ABSTRACT

B 1.2 CEM SAMPLE SYSTEMS



gasmet

Alejandra Cabrera

ABSTRACT

B 1.3 MULTI-GAS FTIR MONITORING IN CARBON CAPTURE PROCESSES



ESC Spectrum

Donny Klotz

ABSTRACT

B 1.4 EMISSIONS MONITORING SYSTEMS: ESSENTIAL CEMS MAINTENANCE



ONTARIO TECHNOLOGICAL UNIVERSITY

Peter Zemek

ABSTRACT

B 1.5 COMPARISON OF EMERGING TECHNOLOGY QUANTIFICATION OF HRVOC AND OHAP (VIRTUAL)

B2

### CEMS | Testing | Sampling | Sensors

Oct 6, 2022

10 am to 12 pm



B3 SYSTEMS

Robert Baxter

ABSTRACT

B 2.1 PS11 LESSONS LEARNED ( NEW)



Tom McKarns

ABSTRACT

B 2.2 TIPS FOR BETTER NOX MEASUREMENTS AT POWER PLANTS



DEKOR

Otto Hirsch

ABSTRACT

B 2.3 HEATED SAMPLE LINES – CRITICAL PATHWAY LINK TO COMPLIANCE



ENGINEERING INT

Hong-Shig-Shim

ABSTRACT

B 2.4 Full-scale Demonstration of Multi-process Sensor at a Cycling PC-fired Boiler



Spectrum

Steve Hall

ABSTRACT

B 2.5 LONG PATH FTIR USED FOR YYYY MEASUREMENTS & LESSONS LEARNED

B3

### MODELING | TESTING | FLARES | FENCELINE MONITORING

Oct 6, 2022

2 pm – 4 pm



TELEDYNE API

Bryan Bibeau

ABSTRACT

B 3.1 NO2 TO NO CONVERTER SELECTION AND MAINTENANCE



INDUSTRIAL SCIENTIFIC

John Wagle

ABSTRACT

B 3.2 DYNAMIC PLUME MODELING TO PREPARE & RESPOND TO CHEMICAL EMERGENCIES



AECOM

Phaneendra Uppalati

ABSTRACT

B 3.3 EMERGENCY GAS FLARES PERMITTING, OPERATIONS AND EMISSIONS TESTING



OTTEK

Otto Fest

ABSTRACT

B 3.4 DIGITIZE THE CONTROL ROOM W/O CHANGING ANYTHING BUT THE ANALOG METERS



atmos

Gilad Spitzer

ABSTRACT

B 3.5 REFINERY FENCELINE OPEN PATH MONITORING RULE 1180 – DETECTION LIMITS AND QA

B4

### CEMS | Sampling | Air Quality | Modeling | Monitoring

Oct 7, 2022

10 am to 12 pm



DIAMOND SCIENTIFIC

Teresa Espy

ABSTRACT

B 4.1 FIXED-POINT LASER METHANE EMISSIONS (FPL) MONITOR



www.aacilab.com

Sucha Parmar

ABSTRACT

B 4.2 Low Level TNMOC Measurements from Stationary Sources



POLITECNICA

Roberto San Jose

ABSTRACT

B 4.3 Atmospheric effects of high-rise buildings: PALM4U CFD – WRF/Chem application over Madrid (Spain)



4M

Ophir Wainer

ABSTRACT

B 4.4 USE OF AI AND SATELLITES FOR SMART UTILITY MAPPING

# TRACK D

POWER GEN, T&D, OIL & GAS, PUMPS,  
TURBINES, COMPRESSORS, HG CONTROL

D1

Renewable Energy | Zero-Carbon Emissions |  
Power Gen | Flexibility | Sustainability

Oct 6, 2022  
7:30 to 9:30 am



Steffen Ziegler



Dennis Barlow



Reed Lengel



Daniel Barbersek



Bruce Ogden



Pete Kelly



ABSTRACT

D 1.1 RISK  
CATEGORIZATION  
OF UTILITY  
UNDERGROUND  
CABLE SYSTEMS

ABSTRACT

D 1.2 FLEXIBLE  
OPERATION OF  
STEAM  
GENERATION  
POWER PLANTS

ABSTRACT

D 1.3 AERO-  
DERIVATIVE  
TECHNOLOGY  
SUPPORTS  
RENEWABLE  
GROWTH

ABSTRACT

D 1.4 POWER  
GENERATION,  
NATURAL GAS,  
DIESEL FUEL,  
POWER STORAGE

ABSTRACT

D 1.5 UNIT  
FLEXIBILITY FOR  
COAL FIRED UNITS

ABSTRACT

D 1.6 ON-SITE  
GENERATION –  
SUSTAINABILITY  
AND  
INFRASTRUCTURE  
(VIRTUAL)

D2

Risk | Simulator | Cyber Security | Mercury | DSI

Oct 6, 2022  
10 am to 12 pm



Dan Walker



Craig Anderson



John Buschmann



Josh Carlucci



Evan Granite



John Bryk



ABSTRACT

D 2.1 CLIMATE  
RESILIENCE:  
MOVING BEYOND  
MITIGATION AND  
ADAPTATION TO  
UNDERSTAND RISK  
REDUCTION

ABSTRACT

D 2.2 CASE  
STUDY – DSI  
RETROFITS  
IMPROVES  
PERFORMANCE  
AND SAVES LARGE  
MIDWESTERN  
UTILITY MILLIONS

ABSTRACT

D 2.3 LIME COST  
REDUCTION FOR  
DFGD

ABSTRACT

D 2.4 SIMULATOR  
TRAINING AND  
PROGRAM WITH  
INTEGRATED  
TECHNOLOGIES

ABSTRACT

D 2.5 OVERVIEW  
ON MERCURY  
CONTROL OPTIONS  
FOR COAL-  
BURNING POWER  
PLANTS (VIRTUAL)

ABSTRACT

D 2.6 SPIES IN  
YOUR NETWORK:  
WHY YOUR  
COMPANY IS A  
TARGET AND HOW  
YOU GOT PAWNED  
(VIRTUAL)

D3

Rotating Parts | Turbines | Compressors

Oct 6, 2022  
2 pm – 4 PM



Keith Brand



Vivek Narayanan



Michael McClure



Rodney Sims



John Dengel



David Cox CHAIR



ABSTRACT

D 3.1 COMMON  
PUMP BEARING  
PROBLEMS AND  
HOW TO SOLVE  
THEM

ABSTRACT

D 3.2 ROTATING  
TO A GREEN  
WORLD

ABSTRACT

D 3.3 STOP THE  
UNPLANNED  
DOWNTIME

ABSTRACT

D 3.4 REMOTE  
INSERVICE OIL  
CONDITION  
MONITORING – IT'S  
FOR REAL "REAL  
TIME"

ABSTRACT

D 3.5 USING FLUID  
ANALYSIS TO  
ACHIEVE  
PROACTIVE  
MANAGEMENT OF  
ASSETS

ABSTRACT

D 3.6 POWER UP  
WITH DATA DRIVEN  
MARKETING

# TRACK E

MSW, LFG, LNG, RNG, SUSTAINABILITY, GREEN, CLIMATE,  
CO2 CAPTURE, ESG, ENVIRONMENTAL JUSTICE

E1

RNG LFG PERMITS | DECARBONIZATION |  
UTILITY WOOD STRUCTURES | FLEET CARBON | CO2

Oct 6, 2022  
7:30 to 9:30 am



Patrick Sullivan



Chris Peterson



Chad Hering



Austin Wentworth



Carolyn Hillebrand



ABSTRACT

E 1.1 AIR QUALITY  
PERMITTING ISSUES  
OR LANDFILL GAS TO  
ENERGY PROJECTS

ABSTRACT

E 1.2 RNG AT DAIRY  
FARMS: CRITICAL  
ISSUES RE MANURE  
SUPPLY AGREEMENTS

ABSTRACT

E 1.3 REDUCE  
ENVIRONMENTAL  
IMPACTS OF OVERHEAD  
STRUCTURES

ABSTRACT

E 1.4 LCFS  
OPTIMIZATION AND  
REACHING FLEET  
CARBON NEUTRALITY

ABSTRACT

E 2.5 CO2 CAPTURE  
READINESS: PLANNING  
FOR THE FUTURE OF  
FOSSIL POWER

E2

LFG | LECHATE | RNG | CO2 CAPTURE

Oct 6, 2022  
10 am to 12 pm



Alex Stege



Anthony Cirillo



Ben Laurent



Jeffrey Pierce



Robert Richardson



ABSTRACT

E 2.1 UNDERSTANDING  
THE UNCERTAINTY IN  
LFG RECOVERY  
FORECASTS USED FOR  
PLANNING RNG  
PROJECTS

ABSTRACT

E 2.2 LANDFILL OR  
LAND FILL ...OF  
OPPORTUNITY?

ABSTRACT

E 2.3 INNOVATIVE ON-  
SITE TREATMENT OF  
LANDFILL LEACHATE  
REVERSE OSMOSIS  
CONCENTRATE

ABSTRACT

E 2.4 FLIP OR FLOP:  
CONVERSION OF  
BIOGAS POWER  
GENERATION TO RNG

ABSTRACT

E 2.5 GREEN  
CAPTURE AND  
REPURPOSE OF CO2

E3

ENVIRONMENTAL JUSTICE | ESG

Oct 6, 2022  
2 to 4 pm



Melvin Strobbe  
CHAIR



Julie Lemay



James Shapard



Renee Lenore



John Niemoller



Dr. Bapanaiah  
Penugonda



ABSTRACT

E 3.1 ENVIRONMENTAL  
JUSTICE  
CONSIDERATIONS  
IN THE TRANSITION  
TO NATURAL GAS  
AND RENEWABLES  
ENERGY

ABSTRACT

E 3.2 ENVIRONMENTAL  
JUSTICE  
INITIATIVES AND  
RISK ASSESSMENT:  
CONSIDERATION  
FOR UTILITIES

ABSTRACT

E 3.3 EQUITY AND  
ENVIRONMENTAL  
JUSTICE MEETS  
TRANSMISSION  
ROUTING

ABSTRACT

E 3.4 PUTTING  
THE PIECES  
TOGETHER:  
MANAGING  
EMERGING ESG  
REQUIREMENTS  
WITH CURRENT  
SYSTEMS AND  
TEAMS

ABSTRACT

E 3.5 ESG DATA  
IS THE KEY TO  
ACCURATE  
METRICS AND  
REPORTING

ABSTRACT

E 3.6 SUSTAINABILITY  
AT NYU AND NEW  
YORK CITY  
(VIRTUAL)






# TRACK F

RENEWABLE ENERGY, STORAGE, EFFICIENCY, PV, SOLAR, WIND,  
GREEN HYDROGEN, SUSTAINABILITY, SMART GRID





## F1 LIGHTNING PROTECTION | UTILITY WILDFIRE SAFETY | DEMAND RESPONSE | RESIDENTIAL EFFICIENCY Oct 6, 2022 7:30 to 9:30 am

 Benjamin Ellis	 Aaron Berndt	 Chloe Mayhew	 Ming Zhu	 Tony Pan
<b>ABSTRACT</b> F 1.1 SOFTWARE DESIGNS FOR GROUNDING REMEDIATION OF LIGHTING TRANSIENT PROBLEMS FOR SOLAR FIELDS	<b>ABSTRACT</b> F 1.2 HOW RESIDENTIAL DEMAND RESPONSE PROGRAMS HELP ALLEVIATE GRID STRAIN	<b>ABSTRACT</b> F 1.3 INTEGRATED HOME DECARBONIZED FUTURE — EFFICIENCY, FLEXIBILITY	<b>ABSTRACT</b> F 1.4 INTEGRATION OF LANDFILL CLOSURE SOLUTION WITH SOLAR POWER GENERATION TECHNOLOGY	<b>ABSTRACT</b> F 4.6 DECARBONIZING HEAT WITH DISTRIBUTED HYDROGEN (VIRTUAL)






## F2 SOLAR POWER | BATTERY | ENERGY STORAGE Oct 6, 2022 10 am to 12 pm

 Aerel Rankin	 Grace Greenberg	 Bradley Lanka	 Francesca Jones	 Andy Flavin
<b>ABSTRACT</b> F 2.1 DISRUPTIVE INDUSTRIAL STAND-ALONE POWER TECHNOLOGIES FOR UTILITIES AND ENVIRONMENT	<b>ABSTRACT</b> F 2.3 HEALTH AND ENV CONSIDERATIONS IN LARGE BATTERY STORAGE	<b>ABSTRACT</b> F 2.4 INNOVATIVE BATTERY TECH FOR RESILIENCY, RISK & COST BENEFITS	<b>ABSTRACT</b> F 2.5 OPTIMIZING FLEET DISPATCH TO INTEGRATE INTERMITTENT GENERATION AND STORAGE	<b>ABSTRACT</b> F 2.6 STATE SITING REGULATION OF ENERGY STORAGE RESOURCES

## F3 DECARBONIZATION & SUSTAINABLE RENEWABLE ENERGY DEVELOPMENT Oct 6, 2022 2 pm to 4 pm

 Rakesh Radhakrishnan Chair	 Alison Wise	 Kelly Rondinelli	 Brian Keane	 Jin Jo
<b>ABSTRACT</b> F 3.1 AVIATION SECTOR DECARBONIZATION	<b>ABSTRACT</b> F 3.2 INNOVATION INFRASTRUCTURE-BIOMICRY AND RESILIENCE IN INNOVATION	<b>ABSTRACT</b> F 3.3 PERFECT UNION: SUPERFUND SITES AND RENEWABLE ENERGY DEVELOPMENT	<b>ABSTRACT</b> F 3.4 PREPARING FOR THE VIRTUAL POWER PLANT: SOLARIZING AT WORK	<b>ABSTRACT</b> F 3.5 SUSTAINABILITY OF UTILITY-SCALE SOLAR PV SYSTEMS (VIRTUAL)






## F4 GREEN HYDROGEN | SUSTAINABILITY | DECARBONIZATION | WORKPLACE ERRORS Oct 7, 2022 10 am to 12 pm

 Brian Petermann Chair	 Krish Vijayaraghavan	 Bill Leighty	 Jake Mazulewicz	 Bobby Ruiz
<b>ABSTRACT</b> F 4.1 HYDROGEN HUBS: GREEN ENERGY — BROWN INFRASTRUCTURE?	<b>ABSTRACT</b> F 4.2 POWER-TO-X AND GREEN HYDROGEN IMPLICATIONS IN USA	<b>ABSTRACT</b> F 4.3 HYDROGEN OR GRID? OPTIMIZING POLICY ALLOCATING MARKETS AND CAPEX FOR GLOBAL GHG-NEUTRAL 2050	<b>ABSTRACT</b> F4.2 THE \$37 BILLION PROBLEM — HOW TO ADDRESS WORKPLACE ERRORS	<b>ABSTRACT</b> F4.5 UPDATES TO EXPLOSION HAZARDS FOR LARGE SCALE BATTERY STORAGE SYSTEMS






# TRACK H

CCR, CCS, ELG, COAL ASH, SWM, O&M, DDD, EHS, FIRE SAFETY, RISK

## H1 CCR | CCP | COAL ASH | IMPONDMENTS Oct 6, 2022 7:30 to 9:30 am

 David Donkin	 Marc Theisen	 Melissa McLaughlin	 Jeff Pope	 Jeff Pope
<b>ABSTRACT</b> H 1.1 USING BOTTOM ASH DEWATERING SYSTEMS TO TREAT OUTAGE WASH WASTEWATER	<b>ABSTRACT</b> H 1.2 ENGINEERED SOIL COVER SYSTEMS FOR SUSTAINABLE CCR CLOSURES	<b>ABSTRACT</b> H 1.3 COMMUNITY AIR MONITORING DURING DEMOLITION AND MANAGEMENT FOR ENVIRONMENTAL JUSTICE	<b>ABSTRACT</b> H 1.4 DECOMMISSIONING & DEMOLITION FOR POWER PLANTS	<b>ABSTRACT</b> H 1.6 SAFETY CONSIDERATIONS FOR PLANT DECOMMISSIONING & DEMOLITION





## H2 CCP Risk Assessment | CCR | Cement | Pondered Ash Beneficiation | CCPS & CO2 Uptake Oct 6, 2022 10:am to 12:00 pm

 Ari Lewis	 Tiffany Duffy	 Jack Ma	 John Hagan & Mike Lynch	 Nick Steinke
<b>ABSTRACT</b> H 2.1 RISK ASSESSMENT AT COAL COMBUSTION PRODUCT SITES FOR REMEDY SELECTION AND PUBLIC COMMUNICATION	<b>ABSTRACT</b> H 2.2 BENEFICIATION OF CCPS THROUGH CO2 UPTAKE & MINERALIZATION	<b>ABSTRACT</b> H 2.3 CONSIDERATIONS FOR THE SUCCESSFUL POND CLOSURE AND WATER TREATMENT UNDER TODAY'S CCR RULE	<b>ABSTRACT</b> H 2.4 INSURANCE COVERAGE FOR CCR INVESTIGATION AND REMEDIATION	<b>ABSTRACT</b> H 2.4 UTILITY OPERATIONS AND MANAGING ENVIRONMENTAL RISK

## H3 Impounded CCP Harvesting | CCP | CCR Oct 6, 2022 2:00 pm to 4:00 pm

 Kyle Flynn	 John Ward	 Michael Hunter	 Bill Fedorka	 Mohsen Tarassoly	 PJ Nolan – Virtual
<b>ABSTRACT</b> H 3.1 BENEFICIATION OF HARVESTED FLY ASH USING A TRIBOELECTRIC BELT SEPARATOR	<b>ABSTRACT</b> H 3.2 COAL ASH AND POLITICS: TWO THINGS THAT AREN'T POLITE TO DISCUSS AT THE DINNER TABLE	<b>ABSTRACT</b> H 3.3 COST-EFFECTIVE, GREEN, CONCRETE DOMES FOR BULK STORAGE OF CCPS	<b>ABSTRACT</b> H 3.4 SIX YEARS OF SERVICE, SUPPLY, AND SUCCESS: PROCESSING HARVESTED CCR FROM IMPOUNDMENTS	<b>ABSTRACT</b> H 3.5 IPB REQUIREMENTS TRANSFORMER CHANGE-OUTS	<b>ABSTRACT</b> H 3.6V GEOCHEMICAL CHANGES AT CCP SITES IN RESPONSE TO MITIGATIVE ACTIONS (VIRTUAL)

## H4 Coal Ash | ACCA | CCR | CCS | ELG Oct 7, 2022 10 am to 12 pm

 Thomas Adams	 Richard Atkinson	 Paul Lear	 Chris Poling	 Tom Kierspe
<b>ABSTRACT</b> H 4.1 CCR SUPPLY TODAY AND TOMORROW – CLOSING THE GAP BETWEEN SUPPLY AND DEMAND	<b>ABSTRACT</b> H 4.2 MAKING ASH HARVESTING PAY, THE LOW ENERGY ROUTE	<b>ABSTRACT</b> H 4.3 IN-SITU STABILIZATION FOR HYDRAULIC CONTROL AT CCR SITES	<b>ABSTRACT</b> H 4.4 TAKING ON THE CHALLENGE OF PONDED ASH BENEFICIATION & GENERATING CEMENTITIOUS FLY ASH	<b>ABSTRACT</b> H 4.5 COAL ASH HARVESTING FOR BENEFICIAL REUSE – CHALLENGES AND LESSONS LEARNED



# TRACK I

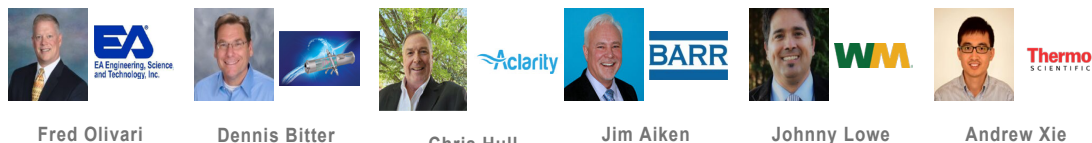
WATER, 316(B), WWM, ASH PONDS, LINERS,  
REMEDiation, ELG, FGD, COOLING TOWER

12

PFAS| Silica Monitoring | HOD UV

Oct 6, 2022

10 am to 12 pm



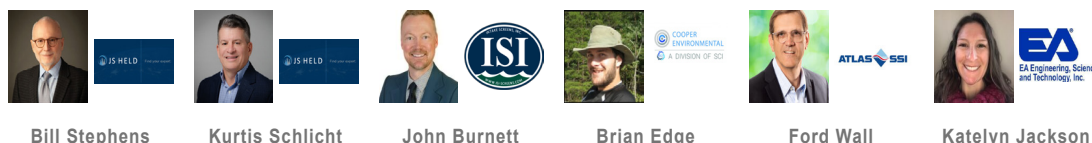
ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT
I. 2.1 ISSUES, TRENDS AND TREATMENT ALTERNATIVES OF ENVIRONMENTAL LIABILITY ASSOCIATED WITH PFAS	I. 2.2 LONG-TERM MEMBRANE PERFORMANCE USING HOD UV FOR DECHLORINATION AND OR DISINFECTION	I. 2.3 ELECTROCHEMICAL OXIDATION FOR PFAS DESTRUCTION	I. 2.4 APPROACHING PFAS: EVALUATING YOUR RISK WHILE DEBATING "TO COLLECT OR NOT COLLECT DATA"	I. 2.5 BEST CONSTRUCTION PRACTICES DURING CLOSURE BY REMOVAL OF PONDED CCR	I. 2.6 NEW ULTRA-TRACE LEVEL SILICA ANALYZER FOR ONLINE MONITORING OF SILICA IN POWER PLANT (VIRTUAL)

13

316 (b) | Dewatering Systems | Impoundments | ESG

Oct 6, 2022

2 pm to 4 pm



ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT
I. 3.1 OPTIMIZING SYSTEMS OF TECHNOLOGIES FOR 316(B) BTA 6-ESTIMATING CREDITS AND REDUCTIONS	I. 3.2 UNIQUE STRATEGIES WITH 316(B) COMPLIANCE AT MULTIPLE FACILITIES	I. 3.3 A REVIEW OF BUILT WEDGE WIRE SCREEN SYSTEMS FOR CLEAN WATER ACT 316(B) COMPLIANCE	I. 3.4 MULTI-METALS CONTINUOUS WATER ANALYZER BASED ON ED-XRF	I. 3.5 THE REALITIES OF INSTALLING EPA 316(B) COMPLIANT TRAVELING SCREENS	I. 3.6 FRESHWATER MUSSEL SURVEY NEAR A MIDWESTERN POWER PLANT - REGULATORY (VIRTUAL)

# TRACK J-CHARGE EXPO

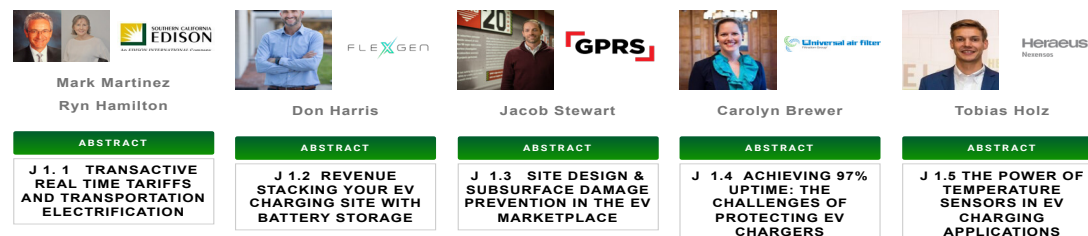
EV CHARGING, BATTERY, FLEET, TRANSPORTATION ELECTRIFICATION

J1

TE & Tariffs | EV Battery Storage | Site Design | EV Financing

Oct 6, 2022

7:30 to 9:30 am



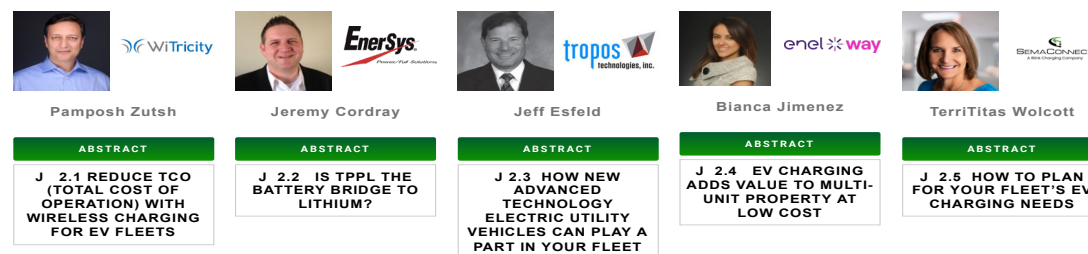
ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT
J. 1.1 TRANSACTIVE REAL TIME TARIFFS AND TRANSPORTATION ELECTRIFICATION	J. 1.2 REVENUE STACKING YOUR EV CHARGING SITE WITH BATTERY STORAGE	J. 1.3 SITE DESIGN & SUBSURFACE DAMAGE PREVENTION IN THE EV MARKETPLACE	J. 1.4 ACHIEVING 97% UPTIME: THE CHALLENGES OF PROTECTING EV CHARGERS	J. 1.5 THE POWER OF TEMPERATURE SENSORS IN EV CHARGING APPLICATIONS

J2

EV Wireless Charging | EV Fleets | Lithium Battery Technology | Multi-Unit Charging | Peak Demand | TE Scaling

Oct 6, 2022

10 am to 12 pm



ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT
J. 2.1 REDUCE TCO (TOTAL COST OF OPERATION) WITH WIRELESS CHARGING FOR EV FLEETS	J. 2.2 IS TPPL THE BATTERY BRIDGE TO LITHIUM?	J. 2.3 HOW NEW ADVANCED TECHNOLOGY ELECTRIC UTILITY VEHICLES CAN PLAY A PART IN YOUR FLEET	J. 2.4 EV CHARGING ADDS VALUE TO MULTI-UNIT PROPERTY AT LOW COST	J. 2.5 HOW TO PLAN FOR YOUR FLEET'S EV CHARGING NEEDS

J3

EV Charging Markets | Lightning Protection | Charging Station Safety | AI-Driven EV| EV Trucks | EV/EVSE Adoption

Oct 6, 2022

2 pm to 4 pm



ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT
J. 3.1 LIGHTNING AND SURGE PROTECTION FOR ELECTROMOBILITY	J. 3.2 AI-DRIVEN SOLUTIONS FOR RESIDENTIAL AND FLEET EV CHARGING	J. 3.3 THE ROLE OF EVS AND EVSE IN THE INTEGRATED HOME	J. 3.4 EV CHARGING: KEY CUSTOMER DRIVERS FOR EV ADOPTION & ROLE OF TECH	J. 3.5 ENHANCE CUSTOMER ENGAGEMENT AND LEVERAGE DIGITAL ADV TO IMPROVE ROI

J4

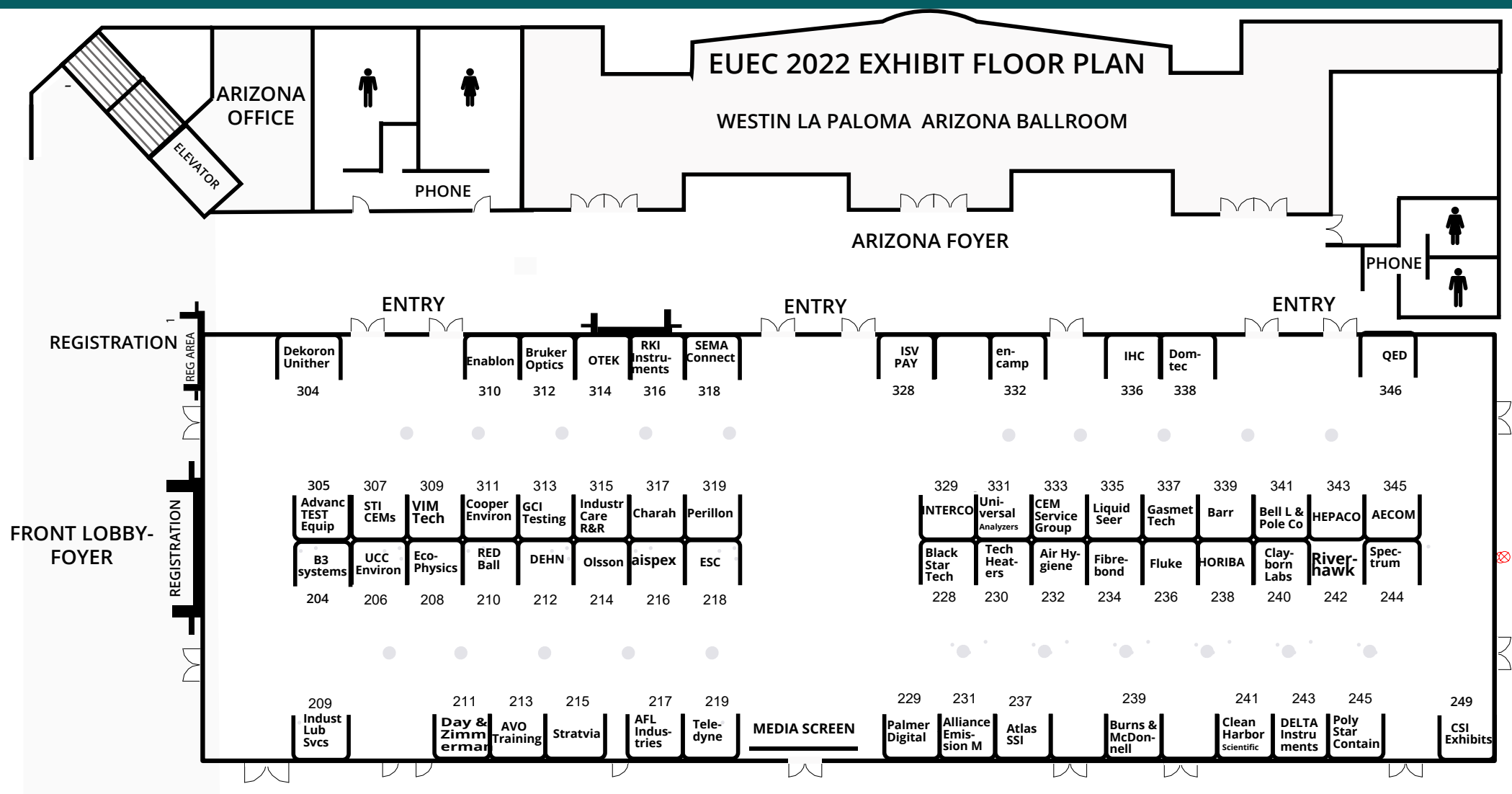
AI EV Charging | Lithium Battery for EV | Infrastructure | EV & VGI Adoption | Rare Earth Magnet Supply for EVs | EV Parking | EV Trucks

Oct 7, 2022

10 am to 12 pm
































ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT	ABSTRACT
J. 4.1 RARE EARTH MAGNET SUPPLY FOR ELECTRIC VEHICLES	J. 4.2 SOLVING THE PEAK DEMAND PROBLEM IN EV CHARGING	J. 4.3 THE FUTURE OF RETAIL IS ELECTRIC	J. 4.4 A SCALABLE APPROACH TO DEPLOYMENT OF THE EV CHARGING INFRASTRUCTURE	J. 4.5 DIVIDEND ACCOUNT PARKING: MORE FAIRNESS & TRANSPARENCY; LESS DRIVING	J. 4.6V 13 REAL WORLD EV TRUCK CASE STUDIES (VIRTUAL)














- |                         |                                 |                            |                              |                         |
|-------------------------|---------------------------------|----------------------------|------------------------------|-------------------------|
| 305 Advanced Test Equip | 333 CEM Service Group           | 332 Encamp                 | 314 Otek Corp.               | 215 Stratvia            |
| 345 AECOM, Inc.         | 317 Charah                      | 234 Fibrebond              | 214 Olsson                   | 219 Teledyne API        |
| 232 Air Hygiene         | 240 Clayborn Labs               | 236 Fluke (Pruftechnik)    | 229 Palmer Digital Group     | 219 Teledyne Monitor    |
| 216 Aispex              | 241 Clean Harbors               | 337 Gasmet Tech            | 319 Perillon                 | 230 Tech Heaters        |
| 217 AFL RGF Industries  | 311 Cooper Environmental        | 313 GCI (Grace) Testing    | 245 PolyStar Containment     | 347 Trinity Consultants |
| 237 Atlas SSI           | 249 CSI Exhibit Service         | 238 HORIBA                 | 347 Power System Consult     | 331 Universal Analyzers |
| 231 Alliance EM         | 211 Day & Zimmermann            | 343 Hepaco                 | 346 QED Environmental        | 206 UCC Environmental   |
| 213 AVO Training        | 243 Delta Instruments           | 329 Interco                | 210 Red Ball                 | 309 VIM Technologies    |
| 204 B3 Systems          | 212 DEHN, Inc                   | 209 Industrial Lubrication | 209 Reliability Testing Svcs | 347 OPEN                |
| 339 Barr Engineering    | 304 Dekoron Unitherm            | 315 Industry Care R&R      | 242 Riverhawk                | 246 AVAILABLE           |
| 341 Bell Lumber & Pole  | 338 Domtec International        | 336 IHC                    | 316 RKI Instruments          |                         |
| 228 BlackStarTech       | 208 EcoPhysics                  | 328 ISV Pay                | 318 Semaconnect              |                         |
| 312 Bruker Optics       | 218 Environmental Systems (ESC) | 335 Liquid Seer            | 307 STI CEMs                 |                         |
| 239 Burns & McDonnell   | 310 Enablon                     | 246 Montrose               | 244 Spectrum Env Sys         |                         |

## EXHIBITING COMPANIES WITH BOOTH NUMBERS

	Advanced Test Equipment	305
	AECOM, Inc.	345
	Air Hygiene	232
	Aispex	216
	AFL Industries	217
	Atlas SSI	237
	Alliance EM	231
	AVO Training	113
	B3 Systems	204
	Barr Engineering	339
	BlackStarTech	228
	Bell Lumber & Pole	341
	Bruker Optics	312
	Burns & McDonnell	239
	CEM Service Group, Inc.	333
	Clean Harbors	241
	Charah	317
	Cooper Environmental	311
	Day Zimmermann	211
	Delta Instruments	232
	DEHN	212
	Dekorun Unitherm	304
	Domtec International	338
	EcoPhysics	208
	Environmental Systems (ESC)	218
	ENABLON	310

	Encamp	322
	Fibrebond	234
	Fluke (Pruftechnik)	236
	Gasmet Tech	337
	GCI (Grace) Testing	313
	HORIBA	238
	Hepaco	343
	Industrial H C	336
	Industrial Lubrication	209
	Industrial Care R & R	315
	Interco	329
	ISVPay	328
	Liquid Seer	335
	Montrose	246
	Olsson	214
	Otek Corp.	314
	Palmer Digital Group	229
	Perillon	319
	PowerSystem Consulting	345
	Polystar Containment	245
	QED Environmental Systems	142
	Red Ball	110
	Reliability Testing Service	209
	Riverhawk	130
	RKI Instruments	316

	SemaConnect	318
	Spectrum Env Sysstems	244
	STI CEMS	104
	Strativia	215
	Teldyne API	219
	Teldyne Monitor Labs	219
	Tech Heaters	230
	Trinity Consultants	347
	UCC Environmental	206
	Universal Analyzers	331
	VIM Technologies	309



## EUEC 2022 TRACKS

### TRACK A:

UTILITY  
POLICY REGS,  
STRATEGIES,  
PERMITS,  
COMPLIANCE

### TRACK B:

CEMS, EMISSION  
TESTING,  
MONITORING,  
MODELING,  
REMOTE SENSING

### TRACK D:

POWER GEN,  
T&D, OIL & GAS,  
PUMPS,  
TURBINES,  
COMPRESSORS,  
MERCURY C

### TRACK E:

MSW, LFG, LNG, RNG,  
SUSTAINABILITY,  
GREEN, CLIMATE,  
CO2 CAPTURE, ESG,  
ENVIRONMENTAL  
JUSTICE

### TRACK J:

EV CHARGING,  
BATTERY, FLEET,  
TRANSPORTATION  
ELECTRIFICATION

### TRACK I:

WATER, 316(B),  
WWM, ASH  
PONDS, LINERS,  
REMEDIATION,  
ELG, FGD,  
COOLING TOWER

### TRACK H:

CCR, CCS, ELG,  
COAL ASH,  
SWM, O&M,  
DDD, EHS, FIRE  
SAFETY, RISK

### TRACK F:

RE STORAGE,  
EFFICIENCY, PV,  
SOLAR, WIND,  
RENEW GREEN  
HYDROGEN,  
SMART GRID

## Wednesday October 5, 2022

Keynote: 5 pm to 6 pm (Murphey)

Welcome Reception in Arizona Foyer: 6 pm to 7 pm

Six Pre-Conference Training Workshops are offered on the followed by the keynote presentations and welcome reception.

## Thursday October 6, 2022

Technical Sessions: 7:30 am to 9:30 am | 10 am to 12 pm | 2 to 4 pm

Networking Receptions in Exhibit Hall: Lunch 12 to 2 pm | Reception 4 to 6 pm

Ten technical tracks (A-J) will be held concurrently 7:30 am to 12 pm and 2 pm to 4 pm. Networking with exhibiting companies are during two hour lunch and receptions.

## Friday October 7, 2022

Technical Sessions: 10 am to 12 pm

Networking Receptions in Exhibit Hall: Lunch & Closing Reception 12 to 3 pm

Technical sessions will be held concurrently 10 am to 12 pm followed by the closing networking lunch and reception 12pm to 3 pm in the exhibit hall.

## EXHIBITS

### Dedicated Networking Receptions in Exhibit Hall

#### DATE | LUNCH & RECEPTION

Oct 6 | 12 - 2 pm and 4 - 6 pm

Oct 7 | 12 - 3 pm | Close by 3 pm

The dedicated networking Lunches and Receptions are held exclusively in the EUEC exhibit hall designed not to compete with technical sessions.

### EXHIBIT SHOW HOURS

Wed.	Oct 5	1 pm	Setup
Thu.	Oct 6	9:30 am to 6 pm	
Fri.	Oct 7	9:30 am to 3 pm	
Fri.	Oct 7	3 pm	Tear Down



### Speaker Format

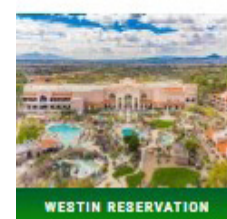
Speakers introduce themselves and make a 20-minute PPT Presentations. Each session is 2 hours long with 6 speakers and 2 co-chairs.

### Session CoChair & Sponsor

Moderate Session & remind speakers not to exceed their time limited to 20 minutes. Do not rearrange speakers in published program.

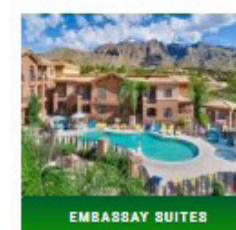
## HOTELS

The Westin La Paloma  
Resort & Spa  
3800 East Sunrise Drive,  
Tucson, Arizona 85718  
**SOLD OUT**



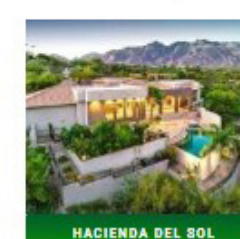
WESTIN RESERVATION

Embassy Suites by Hilton  
Tucson Paloma Village  
(1.9 Miles or 5 minutes)  
3110 East Skyline Drive  
Tucson, Arizona 85718



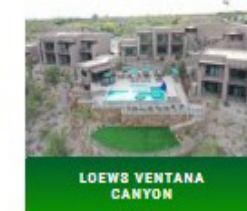
EMBASSAY SUITES

**HACIENDA DEL SOL**  
GUEST RANCH RESORT  
(1.4 Miles or 5 minutes)



HACIENDA DEL SOL

The Loews Ventana Canyon  
Resort Hotel ( 5 Miles)  
7000 N Resort Dr, Tucson,  
AZ 85750.



LOEWS VENTANA CANYON

## EUEC 2022 SCHEDULE

### Wednesday | October 5

7:00 am - 7:00 pm Registration

1:00 pm - 6:00 pm Exhibit Set-up

5:00 pm - 6:00 pm Keynote Presentation

6:00 pm - 7:00 pm Exhibitors Reception

### Thursday | October 6

7:00 am - 7:00 pm Registration

7:30 am - 9:30 am Tech Session 1

9:30 am - 6:00 pm Exhibits Hours

10:00 am - 12:00 pm Tech Session 2

**12:00 pm - 2:00 pm Networking Lunch**

2:00 pm - 4:00 pm Tech Session 3

**4:00 pm - 6:00 pm Networking Reception**

### Friday | October 7

9:30 am - 3:00 pm Exhibit Hours

10:00 am - 12:00 pm Tech Session 4

**12:00 pm - 3:00 pm Networking Lunch & Rec**

3:00 pm - Exhibit Tear Down