www.euec.com info@euec.com EUEC, PO Box 66076 Tucson, (p) 520.615.3535 (f) 602.296.0199 :UEC.COM



15th Annual

Jan 30th - Feb 1st Phoenix, Arizona

Clean Tech Strategies for Environment & Energy Security



2,000 Delegates network in 200 company exhibit area



Register at euec.com and Save:

Jan. 20th Date Now On-Site Cost \$995 \$1,095 \$1,295 \$1,595

Preliminary Program with 600 Speakers

- A Policy & Legislation
- **B** Clean Technologies
- C Multi-Pollutant Control
- D Energy & Climate
- E Wind, Solar & EV
- F CCS & Carbon Mgmt
- **G** GHG Strategies
- H Biofuels & Biomass
- I Sustainability
- J Energy Efficiency
- K Renewable Energy
- L Operations & Mamt

Directors









Bryan Hannegan

EPEI RECENCE POWER



Table of Contents

Preliminary Program At-A-Glance5	
Keynote Speakers	. 4
Directors and Schedule	. 3
What is EUEC?	. 2

Track A: Policy & Legislation	7
Track B: Clean Technologies	10
Track C: Multi-Pollutant Control	13
Track D: Energy & Climate	16
Track E: Wind & Solar & EV	19
Track F: CCS & Carbon Management	22
Track G: GHG Strategies	25
Track H: Biofuels & Biomass	28
Track I: Sustainability	31
Track J: Energy Efficiency	34
Track K: Renewable Energy	37
Track L: Operations & Management	40

Marketing & Sponsorships	43
Exhibit Floor Plan	45
Pre-Conference Sunday Workshops & Golf	47
Hotels	48
Exhibiting Companies	49
Exhibit Reservation Form	50

What is EUEC?

EUEC2012: 15TH ANNUAL ENERGY, UTILITY & ENVIRONMENT CONFERENCE

USA's Largest Professional Networking & Educational Event of its kind

NETWORK WITH 2,000 DELEGATES IN 200 COMPANY EXHIBIT AREA

with 9 networking lunches, receptions & breaks

600 SPEAKERS MAKE PRESENTATIONS IN 12 TRACK PROGRAM

Clean Tech Strategies for the Environment & Energy Sesurity

REGISTRATION COST	Sep 1	Oct 1	Nov 1	Dec 1	Jan 1	Jan 16	Jan 20	On-Site
Attendee Full	7	\$795	\$895	\$945	\$945	\$995	\$1095	\$1,595
3- Day/Gov't/VIP		\$595	\$695	\$695	\$695	\$695	\$795	\$1,395

\$995: Full Conference Registration includes:

- 11 networking meals served buffet style in exhibit area
- Attend all 600 technical presentations in 3 days
- EUEC Flash Drive with 600 presentations with audio

\$695: 3-Day Conference Registration includes:

- Network at 11 functions (purchase meals in exhibit area)
- Attend all 600 technical presentations in 3 days
- EUEC Flash Drive with 600 presentations (without audio)

Who should attend?

INDUSTRY LEADERS AND POLICY MAKERS:

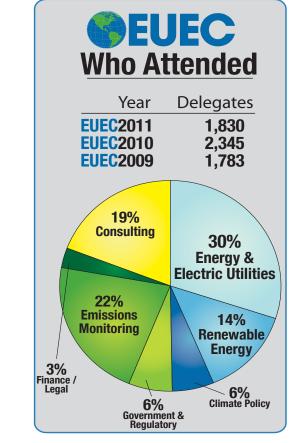
- CORPORATE ENERGY & SUSTAINABILITY EXECUTIVES
- RENEWABLE ENERGY ENTREPRENEURS
- BUSINESS DEVELOPMENT PROFESSIONALS
- UTILITY AND ENERGY EXECUTIVES
- LAWYERS, ACCOUNTANTS AND CONSULTANTS
- U.S. LEGISLATORS, GOVERNMENT AGENCIES
- SCIENTISTS AND RESEARCHERS

INVESTORS:

- COMMERCIAL & INVESTMENT BANKS
- VENTURE CAPITALISTS AND PRIVATE EQUITY
- CORPORATE AND INSTITUTIONAL INVESTORS
- DEAL LAWYERS AND CONSULTANTS
- PROJECT DEVELOPERS

DECISION MAKERS:

- ELECTRIC UTILITIES
- ELECTRIC VEHICLES
- ARCHITECTS/ENGINEERS/SCIENTISTS
- CO-GENERATORS/SELF-GENERATORS
- CNG (COMPRESSED NATURAL GAS)
- FUEL SUPPLIERS
- INDEPENDENT POWER PRODUCERS
- EQUIPMENT MANUFACTURERS
- POWER INDUSTRY CONSULTANTS
- DESIGNERS AND CONSULTANTS
- PROJECT DEVELOPERS
- RESEARCH AND DEVELOPMENT ORGANIZATIONS
- HUMAN RESOURCE MANAGERS AND RECRUITERS
- CONTINOUS EMISSION MONITORS AND SPECIALISTS







Mitchell Baer - Director, Office of Oil and Gas Analysis, U.S. Department of Energy

The Department of Energy's overarching mission is to advance the national, economic, and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex.



EDISON ELECTRIC INSTITUTE

John Kinsman - Senior Director, Environment, Edison Electric Institute

The Edison Electric Institute (EEI) is the association of U.S. Shareholder-Owned Electric Companies. Its members serve 95 percent of the ultimate customers in the shareholder-owned segment of the industry, and represent approximately 70 percent of the U.S. electric power industry. EEI also has more than 70 international electric companies as Affiliate Members, and more than 200 industry suppliers and related organizations as Associate Members. Organized in 1933, EEI works closely with all of its members, representing their interests and advocating equitable policies in legislative and regulatory arenas.



ELECTRIC POWER
RESEARCH INSTITUTE

Bryan Hannegan - Vice President,

Electric Power Research Institute

The Electric Power Research Institute (EPRI), is an independent, nonprofit center for public interest energy and environmental research. EPRI brings together member organizations, the Institute's scientists and engineers, and other leading experts to work collaboratively on solutions to the challenges of electric power. These solutions span nearly every area of power generation, delivery, and use, including health, safety, and environment. EPRI's members represent over 90% of the electricity generated in the United States. International participation represents nearly 15% of EPRI's total R&D program.



United States Environmental Protection Agency

Larry Kertcher - Office of Atmospheric Programs,

U.S. Environmental Protection Agency

EPA leads the nation's environmental science, research, education and assessment efforts. The mission of the Environmental Protection Agency is to protect human health and the environment. Since 1970, EPA has been working for a cleaner, healthier environment for the American people



Prabhu Daval - President, C Trade

C TRADE is a global renewable energy project development company that has constructed nine turnkey Clean Development Mechanism (CDM) biogas to energy projects using waste manure and biomass to capture methane biogas to produce electricity and finance using carbon credits in the Philippines and India.

Exhibit Schedule

EXHIBIT SET UP

Sunday Jan 29th 1 pm to 7 pm

SHOW TIMES

Mon. Jan 30th - 11 am to 7 pm Tue. Jan 31st - 9 am to 7 pm Wed. Feb 1st - 9 am to 12 pm

EXHIBIT TEAR DOWN

Wed. Feb 1st - 12 to 4 pm

Conference Schedule

Sunday	January 29, 2012
	I Johnory /9 /UT/
SOUGHT	Julious / 27, 2012

7:00 am - 7:00 pm Registration
7:30 am - 1:00 pm Golf Tournament
1:00 pm - 5:00 pm Pre-Conference Workshops
1:00 pm - 7:00 pm Exhibitor Set-Up

Monday | January 30, 2012

7:00 am - 7:00 pm	Registration
8:00 am - 11:00 am	Plenary Session
11:00 am - 7:00 pm	Exhibit Hall Open
11:00 pm - 1:00 pm	Networking Lunch - Exhibit Area
1:00 pm - 3:00 pm	Technical Session - 1
3:00 pm - 3:30 pm	Networking Break - Exhibit Area
3:30 pm - 5:30 pm	Technical Session - 2
5:00 pm - 7:00 pm	Exhibit Hall - Open to Public
5:00 pm - 7:00 pm	Networking Reception- Exhibit Area

Tuesday | January 31, 2012

7:30 gm - 9:30 gm Technical Session - 3

7.00 am 7.00 am	To Chillia di Sossioni
9:00 am - 7:00 pm	Exhibit Hall Open
9:30 am - 10:00 am	Networking Break - Exhibit Area
10:30 am - 12:00 pm	Technical Session - 4
12:00 pm - 1:00 pm	Networking Lunch - Exhibit Area
1:00 pm - 3:00 pm	Technical Session - 5
3:00 pm - 3:30 pm	Networking Break - Exhibit Area
3:30 pm - 5:30 pm	Technical Session - 6
5:00 pm - 7:00 pm	Exhibit Hall - Open to Public
5:00 pm - 7:00 pm	Networking Reception - Exhibit Area

Wednesday | February 1, 2012

Troulissady	Colodiy 1, 2012
7:30 am - 9:30 am	Technical Session - 7
9:00 am - 12:00 pm	Exhibit Hall Open
9:30 am - 10:00 am	Networking Break - Exhibit Area
10:00 am - 12:00 pm	Technical Session - 8
12:00 pm - 4:00 pm	Exhibit Tear-Down
1:00 pm - 3:00 pm	Technical Session - 9



Monday, January 30th, 8:00 AM - 11:00 AM

Phoenix Convention Center | 100 N. 3rd St. | Phoenix, AZ 85004



Mercury and Air Toxics Standards for Power Plants
Gina McCarthy | Assistant Administrator | U.S. EPA



Natural Gas in America's Clean Energy Economy
Chris Smith | Deputy Assistant Secretary | U.S. DOE



Regulatory Challenges, Technology Solutions
Chris M. Hobson | Senior Vice President | Southern Company



Impacts of Environmental Controls on the Generation Fleet

Bryan Hannegan | Vice President | Electric Power Research Institute



Development of North America's Oil and Gas Resources
Clay Bretches | Vice President | Anadarko Petroleum Corporation



Natural Gas: A Clean, Low Carbon Alternative?

Mark Brownstein | Chief Counsel | Environmental Defense Fund



EUEC: Looking Ahead After 15 Years of Success Prabhu Dayal | Chairman | EUEC

EPA's New Mercury & Air Toxics Standards (MATS) for Power Plants

On December 21, the U.S. EPA announced standards to limit mercury, acid gases and other toxic pollution from power plants, including limits for HCL, SO2, PM and HAPs. The rules would affect approximately 1400 coal-fired and oil-fired power plants estimated to cost \$10 billion. These rules were issued after 20 years of study and litigation, many of which were discussed by experts at past and the current EUEC conference. The keynote presentation by EPA's Assistant Administrator Gina McCarthy is followed by our keynote panel of senior officials and industry executives and by experts in EUEC's technical program with 3 of 12 tracks -- Tracks A, B, and C -- providing invaluable information on clean air rules, monitoring and control technologies, and strategies for mercury and air toxics.

EUEC provides an educational forum with 600 expert speakers in 12 tracks, and networking events in the exhibit hall to facilitate the collaboration between, Government, Industry and stakeholders for the protection of our environment and energy security.



At-A-Glance

Track	Α	В	С	D	Е	F	G	Н		J	K	L
Sessions	Clean Air Policy	Monitoring & Modeling	Multi- Pollutant Control	Energy & Climate	Wind, Solar & EV	CCS & Carbon Mgmt.	GHG Strategies	Biofuels & Biomass	Sustainability	Energy Efficiency	Renewable Energy	Operations & Mgmt
Room	221A & B	221C	222A & B	222C	223	224A & B	225A	225B	226A	228A	228B	229A
Monday	January 30th											
1:00PM to 3:00PM	Regulatory Update I	CEMS	Hg Control Demonstrations	Natural Gas & Energy Policy	Electric Vehicles	Corporate Strategies & Risk Mgmt.	Carbon Footprint	Algae	Energy Sustainability	Energy Efficiency	Small Scale Renewable & Electric Utilities	Energy Management
3:30PM to 5:30PM	Regulatory Update II	HCL Monitoring	Hg Control Demonstrations & Bromine	Climate Policy & Energy Sustainability	EV-PHEV, CPV & Batteries	Carbon Management	Planning & GHG Reporting	Biofuels / Ethanol	Sustainability Projects	Energy	Distributed Generation	Compliance Technologies & Strategies
Tuesday	January 31st											
7:30AM to 9:30AM	CSAPR	PM, Opacity & Visability	DSI & Multi-Pollutant Control	Economic, Energy & Cyber Security	Solar Feasibility & Assesment	Managing Risk & Project Finance	GHG BACT	Biomass I	Sustainability Reporting	Smart Grid	Renewable Development Analysis	HCP Implementation
10:00AM to 4 12:00PM	NSR & CAA I	Mercury Measurement	HAPs / MACT / TRI	US Climate Policy & Analysis	Solar Projects & Strategies	CCS	Corporate Strategies	Biomass II	Sustainability Green	Energy Efficiency	Renewable Project Development	Power Plant & Boiler Optimization
1:00PM to 3:00PM	NSR & CAA II	Emission Testing & Monitoring	Control Technologies	Energy Policy	Wind Developments	CCS Technologies I	GHG Monitoring & Certification	Bio & Waste Energy	Water Sustainability I	Energy Efficiency & Management	IP & New Technology	EHS & EMIS
3:30PM to 5:30PM	NAAQS	Monitoring & Reporting I	MATS & Control Technologies	State & Regional	Wind Development & Siting	CCS Technologies II	GHG Permits	Landfill Gas to Energy	Water Sustainability II	Energy Conservation & Storage	Solar, PV	EHS & Risk Management
Wednesdo	y February	1 st										
7:30AM 7 to 9:30AM	MACT Policy	Monitoring & Reporting II	Dry Sorbent Injection	California Initiatives			BACT for GHG	Cofiring in Power Plants	Water & Electric Utilities I			ASH / CCP
10:00AM to 12:00PM	Permits & Compliance	Modeling I	Activated Carbon	Energy & Climate			BACT for GHG	Biodiesel, Biofuel & Biomass	Water & Electric Utilities II			Operations & Management
1:00PM to 3:00PM	Clean Air Policy	Modeling II	Advanced Control Technologies									

Monday | January 30

1PM - 3PM

Session Sponsor and Co-Chair



John Kinsman



A1. REGULATORY UPDATE I

Track A | CLEAN AIR POLICY |

AI.I AIR QUALITY REGULATORY CHALLENGES FOR POWER GENERATORS IN 2012

▶ Co-Chair | John Kinsman, Senior Director Environment, Edison Electric Institute

A1.2 IS THAT THE LIGHT AT THE END OF THE TUNNEL OR THE TRAIN? -- GHG TAILORING **RULE. CSAPR. EGU MACT. NEW NAAQS**

Jav Holloway, Partner, Winston & Strawn LLP

A1.3 TIMES UP: EPA COMPLIANCE DATES ARE FORCING DECISIONS ON COAL-FIRED **POWER PLANTS**

Block Andrews, Director of Strategic Environmental Solutions, Burns & McDonnell Engineering

A1.4 UPDATE TO UNITS AT RISK FOR RETIREMENT IN PJM AS A RESULT OF EPA REGULATION M. Gary Helm, Senior Market Strategist, PJM Interconnection; Paul Sotkiewicz

A1.5 ADVENTURES IN PERMITTING - ESTABLISHING REASONABLE BACT/BART LIMITS Steve Norfleet, Project Manager, RMB Consulting & Research, Inc.; Rob Barton

A1.6 CLEAN AIR ACT ABACK - WHAT DOES THIS ALL MEAN?

▶ Co-Chair I Peter Belmonte, Senior Partner, Environmental Resources Management

A4. NSR & CAA I

A4.1 NSR: RECENT DEVELOPMENTS

▶ Co-Chair | Gary McCutchen, Principal, RTP Environmental Associates, Inc.; Colin Campbell & Gary(Gurinder) Saini

A4.2 NSR: IMPACT OF THE GHG TAILORING RULE & UPDATE 2011 SETTLEMENTS

▶ Co-Chair | Liz Williamson, Partner, Winston & Strawn LLP

A4.3 INFORMATION REQUESTS UNDER THE CLEAN AIR ACT Michael Schon, Associate, Baker Botts L.L.P.

A4.4 EMISSION ANALYSES FOR POLLUTION CONTOL PROJECTS: THE OTHER NSR **POLLUTANTS & GHGS**

Sandra Ringelstetter, Vice President, NERA Economic Consulting

A4.5 THE STATUS OF THE ROUTINE MAINTENANCE. REPAIR AND REPLACEMENT EXCLUSION Will DuBois, Special Counsel, Saul Ewing LLP

A4.6 DEMONSTRATING BENEFITS SIGNIFICANTLY OUTWEIGH ENVIRONMENTAL & SOCIAL

Stephen Slocomb, Senior Consultant, Epsilon Associates

10AM - 12PM Session Sponsor and Co-Chair



McCutchen



Liz Williamson

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Randv Brogdon



Lvsa Modica

A2. REGULATORY UPDATE II

A2.1 COMPLIANCE CHALLENGES FOR POWER PLANTS: FEDERAL AND STATE MULTI-**POLLUTANT REGULATIONS**

Anand Yeanan, Sr. Project Manager, ERM; Dr. John Sherwell, Maryland DNR Power Plant Research Program; Julie Ross, ERM

A2.2 EPA REGULATION OF THE ELECTRICITY SECTOR - THE SKY IS NOT FALLING

Donald Neal, Vice President - Environmental Health & Safety, Calpine

A2.3 REGULATORY ANALYSIS OF POWER ISLAND OPTIONS FOR BIOREFINERIES

▶ Co-Chair | Lysa Modica, Senior Scientist, AMEC Environment & Infrastructure; Jeffery Harrington

A2.4 ENVIRONMENTAL NUISANCE CLAIMS AND AIR QUALITY COMPLIANCE

▶ Co-Chair | Randy Brogdon, Partner - Environmental Practice Group Leader, Troutman

A2.5 DEVELOPING MULTI-AIR REGULATIONS COMPLIANCE SOLUTIONS

Ajay Kasarabada, Senior Air Permit Engineer, Black & Veatch Corporation

A2.6 HOLISTIC APPROACHES TO ENVIRONMENTAL COMPLIANCE

Jeremy Timmons, Vice President of Engineering, Neundorfer Particulate Knowledge

A5. NSR & CAA II

A5.1 THE NSR ENFORCEMENT INITIATIVE, MORE THAN A DECADE OLD & IT KEEPS GOING & GOING

▶ Co-Chair | Makram Jaber, Partner, Hunton & Williams LLP

A5.2 RETROSPECTIVE EMISSIONS PROJECTIONS IN NSR LITIGATION: ANALYSIS & ISSUES Marc Chupka, Principal, The Brattle Group

A5.3 FEDERAL AND CITIZEN ENFORCEMENT OF PSD/NSR, STRATEGIES AND TACTICS

▶ Co-Chair | Karl Karg, Counsel, Latham & Watkins, LLP

A5.4 NSR ANALYSIS: EMPLOYING THE "COULD HAVE ACCOMMODATED" EXCLUSION Steven Wesloh, Partner, Frost Brown Todd LLC

A5.5 IMPLICATIONS OF NSR PERMIT DETERMINATIONS FOR NATURAL GAS DRILLING FOR **POWER PLANTS**

Anand Yeanan, Sr. Project Manager, ERM; Dr. John Sherwell, Maryland DNR Power Plant Research Program: Julie Ross and Mark Garrison, ERM.

A5.6 WILL THE REFINING INDUSTRY SURVIVE THE CLEAN AIR ACT?

Bill Smalling, Attorney, C William Smalling, PLLC

1PM - 3PM

Session Sponsor and Co-Chair



Makram Jaber



Karl Karg

Tuesday | January 31

7:30AM - 9:30AM A3. CSAPR

Session Sponsor and Co-Chair

STINSON

MORRISON

HECKER

Dave

Tripp

₹.

Andy

Byers

A3.1 EPA CROSS-STATE AIR RULE: FEDERAL/STATE BREAKDOWN?

▶Co-Chair | Dave Tripp, Partner, Stinson Morrison Hecker, LLP; Sarah Sullivan

A3.2 CSAPR, HAPS MACT AND BEYOND

Steven Fine, Vice President, ICF International

A3.3 THE TRANSPORT RULE - WHAT ARE THE REAL IMPACTS? Kate Graf, Senior Consultant, Geosyntec

A3.4 UPDATE ON UTILITY SECTOR'S IMPLEMENTATION OF THE CROSS STATE AIR

POLLUTION RULE Daniel Chartier, Director - Environmental Markets & Air Quality Programs, EEI

A3.5 CSAPR AND MATS: WHAT DO THEY MEAN FOR ELECTRIC POWER PLANTS?

Amlan Saha, Operations Research Analyst, M J Bradley & Associates

BLACK & VEATCH A3.6 CROSS-STATE AIR POLLUTION RULE - WINNERS AND LOSERS ▶ Co-Chair I Andy Byers, Associate VP Environmental Services, Black & Veatch Corporation; Brian O'Neal

A6. NAAQS

A6.1 STATE OF THE NAAQS

Kurt Kissling, Attorney, Pepper Hamilton LLP

A6.2 COMPLIANCE CHALLENGES POSED BY THE NAAQS FOR SO2, NO2, AND PM2.5

▶ Co-Chair | Robert Paine, Technical Director, AECOM; David Heinold, AECOM

A6.3 A REVIEW AND ANALYSIS OF THE CURRENT NAAQS AND POTENTIAL IMPLEMENTATION/COMPLIANCE CONCERNS

Laura Fleischmann, Associate, Winston & Strawn

A6.4 REGULATING MULTI-MEDIA POLLUTANT ISSUES THROUGH THE USE OF AMBIENT AIR **QUALITY STANDARDS**

8

▶ Co-Chair | Greg Myers, Director of Air Quality, Consumers Energy

A6.5 SO2 NON-ATTAINMENT DESIGNATIONS: AN UPDATE Hal Robbins, President, Bison Engineering Inc

A6.6 NAAQS CHANGES - NEW ISSUES AND APPROACHES TO AIR PERMITTING

Mark Thimke, Attorney, Foley & Lardner LLP

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Greg Myers



Robert Paine



Session Sponsor A7.1 THE UTILITY MACT RULE: WHAT NOW?

STACK TEST AND CEMS DATA

7:30AM - 9:30AM A7. MACT POLICY

Research, Inc.

Wednesday | February 1

Monday | January 30

B1. CEMS

1PM - 3PM Session Sponsor

B1.1 FLUE GAS DESULFURIZATION CEMS DESIGN LESSONS LEARNED AND NEW REGULATIONS MONITORING REQUIREMENTS

▶ Co-Chair | Tim Kuiken, Midwest Regional Sales Manager, Cemtek Environmental

B1.2 IN-STACK MEASURMENTS OF NO2 PARTITIONS FROM VARIOUS COMBUSTION **SOURCES**

Mannie Carpenter, Supervisor, JBR Environmental Consultants, Inc.; Jason Nockleby

B1.3 AIR POLLUTION MONITORING SHELTERS - HIGH QUALITY INSTRUMENT ENCLOSURE Rhys Evans, Technical Manager, AmbiLabs

B1.4 SUSTAINABLE COMPLIANCE MONITORING WITH REDUCED OPERATING COSTS & **GREATER ACCURACY** Joseph Miller, Tech. Consultant - Envr. Soft., Rockwell Automation

B1.5 PM-CEM AND BAGLEAK DETECTION SOLUTIONS FOR BOILER APPLICATIONS

William Averdieck, Managing Director, PCME Ltd



and Co-Chair

Tim Kuiken

Mike

Rossler

and Co-Chair

A7.4 NO. 6 OIL USE UNDER THE EGU MACT RULE

A7.2 MACT OUTLOOK - PRACTICAL IMPLEMENTATION

Robert Fraser, Partner, ERM; Andrew Oliver and Barry Durhan, AGC; Peter Anderson and Mandy Garrahn, ERM

▶ Co-Chair | Carrie Yonley, Vice President, Schreiber, Yonley & Associates; Dan Carney

A7.3 UPPER PREDICTED LIMITS FOR HAP EMISSIONS FROM COAL-FIRED EGUS USING

Jonathan Allen, Principal, Allen Analytics LLC; Ralph L. Roberson, RMB Consulting &

A7.5 WHAT'S BURNING: NEW REGULATIONS FOR COMBUSTION

Jeff Jaros, Vice Presient, NTH Consultants, Ltd.

A7.6 HOW DO YOU QUANTIFY "WORST FORESEEABLE CONDITIONS"?

▶ Co-Chair | Michael Rossler, Manager - Environmental Programs, EEI

Michael Ballenger, Manager of Consulting Services - FL, Trinity Consultants

10AM - 12PM

Session Sponsor and Co-Chair



Mike Rinkol

JORDEN BISCHOFF & HISER, PLC

Eric Hiser

A8. PERMITS & COMPLIANCE

A8.1 IMPACT OF SOLID WASTE REGULATION ON ALTERNATIVE FUELS IN THE PORTLAND **CEMENT INDUSTRY**

Max Lee, President, Koogler and Associates, Inc.; John Koogler, Kyle Ulmer, Matt Tribby and Karl Seltzer

A8.2 1-HOUR NAAQS COMPLIANCE STRATEGIES - SHORT-TERM STANDARDS REQUIRING **LONG-TERM SOLUTIONS**

▶ Co-Chair | Mike Rinkol, Lead Air Dispersion Modeler, Black & Veatch Corporation; Brian

A8.3 RECENT TRENDS IN EPA AND ACTIVIST GROUP AIR PERMIT CHALLENGES

▶ Co-Chair | Eric Hiser, Partner, Jorden Bischoff & Hiser, PLC

A8.4 NO2 AND SO2 1-HOUR NAAQS - WHY SHOULD I CARE?

Thomas Pritcher, Senior Engineer, Environmental Consulting & Technology, Inc.

A8.5 BEST MANAGEMENT PRACTICES FOR COAL CAR TOPPING

Dan Carpenter, Power Market Manager, Midwest Industrial Supply, Inc.

A8.6 AIR PERMITTING FOR COMBINED & SIMPLE CYCLE COMBUSTION TURBINES TODAY Mary Hauner-Davis, Manager - Air & Noise Department, Burns & McDonnell; Minda

Nelson

1PM - 3PM

Session Sponsor and Co-Chair



Nancy LaPlaca

A9. CLEAN AIR POLICY

A9.1 MANAGING RISK AND USING REALISTIC AIR MODELING ASSUMPTIONS Robert McCann, Principal; Director - Air Resources, Golder Associates Inc.

A9.2 VALUE ADDED OR SUBTRACTED: SUBSIDIES AND EXTERNALITIES

▶ Co-Chair I Nancy LaPlaca, Arizona Corporation Commission, Commissioner Paul Newman's Office

A9.3 A SECONDARY NAAQS FOR PM2.5 TO PROTECT VISIBILITY -- HOW MIGHT IT WORK

▶Co-Chair | Ivar Tombach, Consultant

A9.4 CSAPR: COMPLIANCE STRATEGIES AND PORTFOLIO OPMIZATION Mason Henderson, Director, Element Markets

A9.5 HELP! REGULATORY OVERLOAD...CAN SOMEONE JUST GIVE ME THE FACTS?

Art Samberg, Senior Consultant, Golder Associates Inc.

B2. HCL MONITORING

B2.1 DRY EXTRACTIVE MEASUREMENTS FOR LOW HCL LEVELS: EXPERIENCE OF AN RDF PLANT

▶ Co-Chair | Scott Brown, Vice President, Perma Pure; John Buresh, XCEL Energy

B2.2 HCL MONITORING EXPERIENCE

Seth Morrell, Sales and Marketing Manager, Altech Environment U.S.A.

B2.3 FTIR FOR MEASUREMENT OF HCI ON VARIOUS EMISSION SOURCE APPLICATIONS Kevin Ramazan, Ph.D., Research & Development Manager, California Analytical Instruments: Matt Swanson

B2.4 FTIR CEM FOR HCL AND NH3- UPDATE AND ADVANCES

▶ Co-Chair I Jeremy Whorton, CEMS Product Manager, Thermo Fisher Scientific: Steve Johnson and Dieter Kita

B2.5 HCL MONITORING: BEST PRACTICES AND TECHNOLOGY OVERVIEW

Heimo Breton, Manager - Corp Solutions Center, SICK Process Automation; Dan Kietzer

3:30PM - 5:30PM

Session Sponsor and Co-Chair





Scott Brown

Tuesday January 31

B3. PARTICULATE MATTER, OPACITY & VISIBILITY

B3.1 DIGITAL OPACITY MEASUREMENT LEGAL STATUS

Shawn Dolan, President, Virtual Technology LLC

B3.2 PM CEMS EXPERIENCE

Rich Brown, Product Manager, Altech Environment U.S.A.

B3.3 ADVANCES IN PM MONITORING USING HYBRID SELF-REFERENCING TECHNOLOGY

Dr. Dieter Kita, Director - R&D/E, Thermo Fisher Scientific: Kevin Goohs

B3.4 ESP VERSUS BAGHOUSE COMPARATIVE STUDY

Mick Chambers, Director of Pre-Contract Operations, Southern Environmental, Inc.

B3.5 DEVELOPMENT OF A MORE REPRESENTATIVE PM EMISSION FACTOR FOR NATURAL GAS-FIRED, AERODERIVATIVE-CLASS COMBUSTION TURBINES

Louis Corio, Senior Air Quality Scientist, Zephyr Environmental Corporation

B3.6 PM10/2.5 EMISSIONS FROM NATURAL GAS-FIRED COMBINED CYCLE POWER PLANTS

▶ Co-Chair | Joy Brooks, Principal Consultant, ENVIRON; Glenn England, ENVIRON; Jeff Hogan, The Avogadro Group; Teresa Ponder, Gila River Power LP

7:30AM - 9:30AM

Session Sponsor and Co-Chair



John Watson & Judy Chow



Glenn England



Wednesday | February 1

Tuesday | January 31

10AM - 12PM

Session Sponsor and Co-Chair



Rich Brown



B4. MERCURY MEASURMENT

B4.1 DEVELOPMENT UPDATE ON THE XACT™: AN X-RAY FLUORESCENCE BASED MERCY AND NON-MERCURY HAP METALS CEMS

Krag Petterson, Principle Product Engineer - Emissions Monitoring, Pall Corporation; Douglas Barth, Marty Ladner

B4.2 TECHNICAL ADVANCEMENTS IN HG CEM'S

▶ Co-Chair | Dan Kietzer, Business Development Manager, SICK Process Automation

B4.3 AMESA M SORBENT TRAP MERCURY MONITOR

▶ Co-Chair | Rich Brown, Product Manager, Altech Environment U.S.A.

B4.4 MERCURY MEASUREMENTS FROM PILOT-SCALE FURNACES

Andrew Fry, Manager of Engineering R&D, Reaction Engineering International; Brydger Van Otten and Brad Adams, REI; Larry Bool, Praxair

B4.5 SORBENT TRAP SAMPLING METHOD FOR HALOGEN & TRACE METAL EMISSIONS John H. Pavlish, Sr. Manager - Research, Energy & Environmental Research Center;

B4.6 REDUCE UMBILICAL (SAMPLE LINE) TEMPERATURES ON HG FREEDOM CEM SYSTEMS Jeremy Whorton, CEMS Product Manager, Thermo Fisher Scientific: Jeff Socha and Regaie Davis, Spectrum Systems

1PM - 3PM

B5. EMISSION TESTING & MONITORING

B5.1 PM SPIKING FOR PM CEMS CALIBRATION

▶ Co-Chair | Robert Baxter, President, B3 Systems, Inc.; Derrick Hinkle, and Ron Petersen

B5.2 METHOD 29 ALTERNATIVES: MULTI-METAL METHODS WITH CHEMICALLY REACTIVE **FILTERS AND XRF ANALYSIS**

▶ Co-Chair I John Cooper, President, Cooper Environmental Services LLC: Troy Pittenger and Carly Hernandez

B5.3 PM & MULTI-METAL CEMS CALIBRATION & AUDITS USING A QUANTITATIVE AEROSOL **GENERATOR**

Troy Pittenger, Cooper Environmental Services LLC; John Cooper, Aaron Siemers and Jamie Berg

B5.4 PREPARING FOR INITIAL PERFORMANCE TESTS AT COAL-FIRED AND OIL-FIRED EGUS Jim Serne, Principal Engineer, TRC Environmental Corporation

B5.5 IR GAS DETECTION TECHNOLOGIES IMPROVING SAFETY & DIRECTING MAINTENANCE Milton Heath, Director - Environmental Services, Heath Consultants Incorporated

B5.6 AIR POLLUTION FROM TAILINGS OF DEPOSITED AEROSOL IN CITY OF MITROVICA Afrim Syla, Air Quality Specialist, University of Prishtina - Kosovo; Fatbardh Syla

3:30PM - 5:30PM B6. MONITORING & REPORTING I

Session Sponsor and Co-Chair

Matthew

Radigan

B6.1 AMMONIA MEASUREMENTS WITH PHOTOACOUSTIC SPECTROSCOPY

▶ Co-Chair I Tom McKarns, Principal, ECO PHYSICS, INC.

B6.2 SMOKE STACK MONITORING REQUIREMENTS AND OPTIONS

Robert Mullowney, CEO, MonitorTech Corporation

B6.3 MANAGING AN AIR COMPLIANCE DATA ACQUISITION SYSTEM WITHIN THE VIRTUAL **WORLD OF AN IT DEPARTMENT**

▶ Co-Chair | Matthew Radigan, Business Development Manager, VIM Technologies, Inc.; S. Millsaps, Progress Energy; W. Davidson, C.E.M. Solutions, Inc.

B6.4 MEASUREMENT OF PM2.5 EMISSIONS FROM LOW-CONCENTRATION SOURCES Kevin Crosby, Technical Director, The Avoaadro Group, LLC

B6.5 REAL-TIME MONITORING OF SO3 IN THE FLUE GAS

Anand Mamidipudi, Product Line Manager, Thermo Fisher Scientific; Jeff Socha

B6.6 PREDICTIVE EMISSIONS MONITORING SYSTEM QUALITY ASSURANCE

Brian Swanson, President, CMC Solutions; Dave Haehnle

B7. MONITORING & REPORTING II

7:30AM - 9:30AM

B7.1 OPTICAL SCINTILLATION FLOWMETER OVERCOMES EXTREME APPLICATION CONDITIONS Donn Williams, Executive V.P., Optical Scientific, Inc.

B7.2 CLIMATE CHANGE AND SF6 EMISSIONS

▶ Co-Chair I John Eastman, Project Engineer, INCON

B7.3 CEMENT AND COAL PLANTS EMISSIONS MONITORING BY FTIR

Sylvie Bosch-Charpenay, Senior Applications Engineer, MKS Instruments; Barbara Marshik, and Peter Zemek

B7.4 ADVANCED CEMS DATA QA TECHNIQUES

Rudi Muenster, Compliance Manager, VIM Technologies; Bill Mitchell

B7.5 DEVELOPMENT & FIELD TESTING OF A CONTINUOUS REAL-TIME IN SITU SO3 MONITOR

▶ Co-Chair I Curtis Laush, Senior Scientist, Industrial Monitor and Control Corp. (IMACC): Greg Coleman and Brian Adair, Geosyntec Consultants

B7.6 QUALITY CONTROL OF AIR POLLUTION NETWORK IN ALEXANDRIA CITY, EGYPT

Mina Ghattass Gad, M. Sc. Student, Alexandria University; Shawkat K. Guirguis

B8. MODELING I

B8.1 AN EMISSIONS VARIABILITY PROCESSOR FOR USE IN COMPLIANCE MODELING

▶ Co-Chair | Robert Iwanchuk, Manager - Air Quality Services, AECOM; Robert Paine, Richard Hamel and David Heinold, AECOM; Naresh Kuman and Eladio Knipping, EPRI

B8.2 MODELING THE NEW NO2 1-HOUR NAAQS

Shantanu Kongara, Permit Engineer, JBR Environmental Consultants

B8.3 THE REGIONAL HAZE MODELING WARS CONTINUE

▶ Co-Chair | Gale Hoffnagle, Air Quality Consulting Practice Leader, TRC Environmental Corporation

B8.4 UPDATES TO AERMOD AND IMPACTS TO COMPLIANCE

Teresa (Tree) Raine, Senior Consultant, ERM

B8.5 PALMDALE HYBRID POWER PROJECT PERMITTING CASE STUDY-NAAQS MODELING

Rich Hamel, Air Quality Meteorologist, AECOM; Sara Head

B8.6 GETTING TO (MODELED) YES: 10 CONVENTIONAL AND UNCONVENTIONAL MEASURES TO MODEL COMPLIANCE WITH THE NEW AMBIENT STANDARDS

Clay Raasch, Upper Midwest Operations Director, Trinity Consultants

10AM - 12PM

Session Sponsor and Co-Chair



Robert Paine



Gale Hoffnagle

B9 MODELING II

B9.1 SHORT-TERM NAAQS MODELING - LESSONS LEARNT

▶ Co-Chair | Mark Garrison, Senior Associate, ERM; Dr. John Sherwell, Maryland DNR; Anand Yegnan and Surya Ramaswamy, ERM

B9.2 MODELING POWER PLANTS WITH AERMOD & REVISED BUILDING DOWNWASH Everest Yan, Senior Engineer, PCR Services Corporation; Heidi Rous

B9.3 SOLUTIONS FOR A MONITORED SO2 NAAQS EXCEEDANCE WHEN AERMOD **DEMONSTRATES COMPLIANCE**

Anke Beyer-Lout, Project Scientist, CPP, Inc.; Ron Petersen

B9.4 ERRORS IN IPM ASSUMPTIONS ON REMEDY MODELING FOR EPA'S TRANSPORT RULE Carl Weilert, Principal APC Engineer, Burns & McDonnell

B9.5 SELECTING AN ALTERNATIVE CASE SCENARIO FOR ACCIDENTAL RELEASE MODELING FOR SOURCES SUBJECT TO RISK MANAGEMENT PLAN (RMP) REGULATIONS

▶ Co-Chair | Kyle Heckel, Environmental Consultant, Trinity Consultants

Session Sponsor and Co-Chair

1PM - 3PM



Garrison



1PM - 3PM

NALCO

Session Sponsor and Co-Chair

Mobotec €

Bruce

Keiser

Monday | January 30

C1. HG CONTROL DEMONSTRATIONS

C1.1 CUMULATIVE BENEFITS OF HG REDUCTION USING HBR

Bobby Chen, Client Program Manager, Shaw Environmental, Inc.

C1.2 MHI MERCURY REMOVAL SYSTEM WITH NH4CL INJECTION Shintaro Honjo, R & T Engineering Manager, Mitsubishi Heavy Industries America, Inc.

C1.3 MEETING MERCURY EMISSION REGULATIONS THROUGH CONTROL OF RE-EMISSION **ACROSS WET FGDS**

▶ Co-Chair | Bruce Keiser, Research Fellow, Nalco Company; John Meier, Wayne Carlson, Jianwei Yuan, and Robert Dorner

C1.4 DEMONSTRATION OF HG. ARSENIC AND SELENIUM REDUCTION IN FGD SETTLING POND USING NEW METHOD FOR SORBENT DISBREMENT AND RETENTION

Robert Jones, Managing Partner, Energy & Environmental Enterprizes, LLC; Millicent

Novinda^{*}

Jim

Butz

C1.5 MOBILITY, SETUP AND PRECISION OF PORTABLE HG CEMS

Joseph Siperstein, President, Ohio Lumex Company; Mark Seibel & Andrew Mertz

C1.6 AMENDED SILICATES FOR MERCURY CONTROL

▶ Co-Chair I Jim Butz, Manager-Technical Services, Novinda: Mike Lucarelli, Novinda: Gordon Schott, CH2M Hill

3:30PM - 5:30PM

C2. HG CONTROL DEMONSTRATIONS & BROMINE

Session Sponsor and Co-Chair

C2.1 IMPACTS OF HALOGEN INJECTION FOR MERCURY CONTROL IN COAL-FIRED BOILERS Connie Senior, Senior Scientist, ADA-ES; Sharon Sjostrom and Ken Baldrey

C2.2 OPERATING RESULTS OF ALSTOM'S KNXTM HG CONTROL TECHNOLOGY IN 2000 MW OF COAL-FIRED BOILERS

VOSTEEN CONSULTING GMB

Bernhard

Vosteen

Jon Lehmkuhler

Great Lakes

Thomas Pearson, Principal Process Engineer, Alstom Power; Andy Szafarz, Alliant Energy; Edwin L. Morris Jr. P.E., We Energies; Bernhard W. Vosteen, Vosteen Consulting GmbH

C2.3 BROMINE ENHANCED DRY MERCURY CAPTURE

▶ Co-Chair I Bernhard W. Vosteen, President, Vosteen Consultina GmbH

C2.4 ADVANCEMENT OF THE STEAG PROCESS FOR HG & SE REDUCTION IN WASTE WATER

▶ Co-Chair | Philip Elliott, Project Manager, STEAG Energy Services LLC

C2.5 BR INJECTION TECHNOLOGY FOR HG MITIGATION AT COAL-FIRED POWER PLANTS Thomas Gale, Power Systems Research Manager, Southern Research; George Blankenship

C2.6 REVIEW HG CONTROL TECHNOLOGY UTILIZING SORBENT ENHANCEMENT ADDITIVES Marcus Sylvester, VP Sales, Midwest Energy Emissions Corp; Rick MacPherson

Tuesday | January 31

7:30AM - 9:30AM C3. DSI & MULTI-POLLUTANT CONTROL

Session Sponsor and Co-Chair





GRAYMONT

Tseng

C3.2 FGD SYSTEM RETROFIT AND RELATED IMPROVEMENTS AT MILTON R. YOUNG UNIT 1 Katie Bland, Environmental Engineer, Burns & McDonnel; Scott Richart; Craig Bleth and Kevin Thomas, Minnkota Power Cooperative: Robert Warner, Marsulex Environmental **Technologies**

C3.3 LIME-BASED CIRCULATION DRY SCRUBBERS FOR EXISTING COAL-FIRED BOILERS TO **MEET MACT LIMITS**

▶ Co-Chair | Shiaw Tseng, Manager - Flue Gas Treatment Technologies, Graymont

C3.4 OPERATIONAL FACTORS AFFECTING MERCURY RE-EMISSIONS FROM A WET FLUE **GAS DESULFURIZATION SYSTEM**

Eric ten Siethoff, Lead Engineer, MPR Associates; Jeff Russell, MPR Associates; Paul Orban, GenOn Energy

Shiaw

Diane Fischer, Air Quality Control Services Area Leader, Black & Veatch

C3.5 DEVELOPING HOLISTIC COMPLIANCE SOLUTIONS

C4. HAPS/MACT/TRI

C4.1 REMOVAL OF HCL USING HYDRATED LIME DRY SORBENT INJECTION

▶ Co-Chair | Curt Biehn, Manager - Technical Sales & Marketing, Mississippi Lime Company; Tony Silva, Babcock & Wilcox

C4.2 DRY SORBENT INJECTION FOR SIMULTANEOUS EGU MACT & CATR COMPLIANCE Jon Norman, DSI Technology Manager, United Conveyor Corporation

C4.3 CAN I KEEP MY ESP WITH THE MACT RULE?

▶Co-Chair | Michael Widico, VP of Business Development, Lodge Cottrell Inc.

C4.4 HCL EMISSIONS REDUCTION WITH HYDRATED LIME AT TVA'S SHAWNEE FOSSIL PLANT Bryan Williams, Project Manager - Environmental Controls, TVA; Curt Biehn, Miss. Lime Co.

C4.5 EFFECTIVE MERCURY AND SO3 CONTROL USING SBS INJECTION™ Sterling Gray, Business Development Manager, URS Corporation

C4.6 FIELD TEST PROGRAMS TO EVALUATE EGU MACT COMPLIANCE STRATEGIES

Russell Berry, Senior Project Manager, RMB Consulting & Research, Inc.

10AM - 12PM

Session Sponsor and Co-Chair



Silva

C5. CONTROL TECHNOLOGIES

C5.1 EFFECTIVE NOX CONTROL USING PEROXIDE OXIDATION & SDA CAPTURE IN TANDEM

▶ Co-Chair I Robert Crynack, Business Development Manager - Alr Emissions, FMC Corporation Peroxygen Division; John Rovison, Tim Holtz, and Kevin Huang, FMC; Dennis Laudal, Stan Miller, and Jeff Thompson, EERC

C5.2 FUEL LEAN GAS REBURN AS A TOOL FOR CSAPR COMPLIANCE

▶ Co-Chair | Charles Lockert, Vice President, Breen Energy Solutions; Chetan Chothani

C5.3 MULTIPOLLUTANT CONTROL TECHNOLOGY

Kevin Crapsey, Vice President, Eco Power Solutions; Sanjeev Jolly, Eco Power Solutions

C5.4 SCR CATALYST REGENERATION - EXTENDING THE LIFE-CYCLE OF YOUR ASSETS Mike Mattes, Chief Operating Officer, CoaLogix: Randy Sadler

C5.5 MULTIPLE SOX, NOX AND MERCURY REMOVAL IN A SINGLE WET SCRUBBER PASS Yuval Davidor, Executive Director, Lextran Ltd.; Haim Sternfine

C5.6 ENSURING OPTIMAL COMPLIANCE WITH FUTURE MERCURY REGULATIONS Gary Rudowski, Director – U.S. Energy Business, Hatch

1PM - 3PM

Session Sponsor and Co-Chair





C6. MATS & CONTROL TECHNOLOGIES

C6.1 EFFECT OF PLANT OPERATIONS ON TRACE METAL CHEMISTRY IN FGD LIQUOR Corey Tyree, Principal Engineer, Southern Company; Jonathan Allen, Allen Analytics LLC; Derek Eagert, Southern Research

C6.2 ADVANCED HG OXIDATION TRAC® CATALYST FOR COAL FIRED POWER PLANTS Kyle Neidig, Catalyst Product Manager, Hitachi Power Systems America, Ltd.

C6.3 A CARBON COMPOSITE BASED FLUE GAS HG AND SOX REMOVAL TECHNOLOGY X. Sean Lu, Technologist, W.L. Gore & Associates, Inc.; Steven Stark, Zhengtian Xu, Richard Gebert, W.L. Gore; Thomas Machalek, Carl Richardson, Jennifer Paradis, URS; Ramsay Chang, EPRI; Brandon Looney, Marcus Mathews, Southern Company

C6.4 MATS COMPLIANCE THROUGH ESP ENHANCEMENT & MER-CURE™ TECHNOLOGY Richard LaFlesh, Principal Consulting Engineer, Alstom Power; Tapan Mukherjee and John Iovino

C6.5 RETROFIT OPTIONS TO MEET THE MATS

▶ Co-Chair | Sharon Sjostrom, CTO, ADA-ES; Connie Senior, Cameron Martin and Jean

C6.6 ULTRA™ PROCESS & ITS EFFECTS IN ESP PERFORMANCE & OPERATION IMPROVEMENTS

14

▶ Co-Chair | John Boyle, Sr. Director - Technology Development, Fuel Tech, Inc.

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Boyle



Sharon Sjostrom

D1.1 NATURAL GAS DEMAND

Ken Yeasting, IHS CERA

Paul Hagemeier, VP CHK

Monday | January 30

1:00PM - 3:00PM

Session Sponsor and Co-Chair



George



Ditzel

Wednesday | February 1

7:30AM - 9:30AM C7. DRY SORBENT INJECTION

Session Sponsor and Co-Chair



Yougen Kong



Thiel

C7.1 DSI WITH HYDRATED LIME - A LOW CAPITAL COST MACT CONTROL OPTION

Jim Dickerman, Director of Flue Gas Treatment, Lhoist North America: Melissa Sewell

C7.2 DESIGNING AND OPERATING A RELIABLE DSI SYSTEM

Greg Filippelli, Director of Operations, ADA Environmental Solutions; Martin Dillon, Aaron Oakley, and Randy Boerema

C7.3 USE DRY SORBENT INJECTION TO COMPLY WITH AIR EMISSIONS REGULATIONS

▶ Co-Chair | Yougen Kong, Technical Development Manager, Solvay Chemicals Inc.

C7.4 DRY SORBENT INJECTION AND HCL MITIGATION

▶ Co-Chair | Michael Thiel, Technical Sales Manager, Nol-Tec Systems, Inc.

C7.5 REAL TIME SO3 MONITORING IN POWER PLANTS

C8. ACTIVATED CARBON

Sjostrom, ADA-ES; Chris Vizcaino, ADA-CS

John Kline, VP Technical Expertise, Lafarge

FIRED POWER PLANT FLUE-GAS

Foster, Jack Drwiega & Caitlin Gross

C8.1 POWDERED ACTIVATED CARBON WITHIN ESPS

C8.2 ACTIVATED CARBON PERFORMANCE IN EMISSION SYSTEMS

C8.3 THE FUTURE OF FLYASH AS A CEMENTITIOUS MATERIAL

Dan Kietzer, Business Development Manager, SICK Process Automation

C7.6 HCL CONTROL WITH SODIUM AND CALCIUM SORBENTS

Anthony Silva, Principal Engineer, Babcock & Wilcox; Edward Campobenedetto

Herek Clack, Associate Professor, Illinois Institute of Technology; Yasmin Khakpour

Robert Huston, Director of Technical Services, ADA-CS; Justin McNeil and Sharon

C8.4 IMPROVED HG REMOVAL PERFORMANCE USING NEW DARCO® HG-LH EXTRA

▶ Co-Chair | Rob Nebergall, Business Mgr. - Emissions Control Technologies, Norit Inc.

▶ Co-Chair | David Mazyck, CEO, Carbonxt; Heather Byrne, Ameena Khan, Christine

C8.5 NON-HALOGENATED ACTIVATED CARBON FOR MERCURY CAPTURE FROM COAL-

D2. CLIMATE POLICY & ENERGY SUSTAINABILITY

D2.1 RENEWABLE ENERGY MANDATES & GHG CONTROLS: TWO'S A CROWD Lily Mitchell, Senior Associate, Hanna and Morton LLP

D1. NATURAL GAS & ENERGY POLICY

D1.2 OPERATIONS AND ENVIRONMENTAL ISSUES WITH NATURAL GAS

D1.3 PRUDENT DEVELOPMENT - REALIZING THE POTENTIAL OF NORTH AMERICA'S

▶ Co-Chair | Fiji George, Manager - Safety & Sustainability, El Paso Corporation

D1.4 POLICY RECOMMENDATIONS: NPC AND SEAB SHALE GAS REPORTS

D2.2 THE STATE OF CLIMATE COMMUNICATIONS

ABUNDANT NATURAL GAS AND OIL RESOURCE

Susan Tierney, Managing Principal, Analysis Group D1.5 NATURAL GAS: CLIMATE BRIDGE OR ROADBLOCK?

Armond Cohen, Executive Director, Clean Air Task Force

D1.6 INDUSTRIAL GAS DEMAND RENAISSANCE: WILL IT HAPPEN?

▶ Co-Chair | Kenneth Ditzel, Principal, Charles River Associates

▶ Co-Chair | Margery Moore, Director of EHS Strategic Alliances, Bloomberg BNA

D2.3 HOW CLIMATE CHANGE IS DRIVING A NEW WAVE OF ENERGY EFFICIENCY REVIEW & INVESTMENT

Rick Shih, Program Director, ERM; Lynn M. McGuire

D2.4 ENDURING THE ENVIRONMENTAL LEGISLATIVE ROLLER COASTER Grea Gasperecz, VP - Environmental, Health & Safety, Enviance

D2.5 ECONOMIC ANALYSIS OF EXISTING COAL PLANT RETROFITS WITH CCS

John Marano, Consultant, NETL; Donald Hanson

D2.6 GLOBAL CLIMATE CHANGE - THE ENERGY CHALLENGE

▶ Co-Chair | Frank Princiotta, Director, Environmental Protection Agency

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Frank Princiotta

Bloomberg BNA

Margery Moore

and Co-Chair

Session Sponsor

10AM - 12PM



Fessenden



Heather Byrne

1PM - 3PM

Session Sponsor

and Co-Chair

ALBEMARLE

Jon

Miller

Bobby

Chen

C9. ADVANCED CONTROL TECHNOLOGIES

C9.1 WET FGD VERTICAL ARRANGEMENT IN CONCRETE CHIMNEY WINDSHIELD

Mitchell Krasnopoler, Manager/Air Quality, Kiewit Power Engineers; Tim Dement, Anand Mahabaleshwarkar, Bob Alder, and Steve Frankosky

C9.2 RECENT TRIALS WITH CONCRETE-FRIENDLYTM C-PACTM MERCURY SORBENT

▶ Co-Chair I Jon Miller, Customer Technical Service Engineer, Albemarle Mercury Control

C9.3 RE-ENGINEERING COAL-FIRED GENERATING PLANTS FOR LOW POLLUTANT **EMISSIONS AND EXTENDED COMPETITIVE LIFE**

Keith Moore, President, CastleLight Energy Corp; Dr. John Stencil, TriboFlow Separations

C9.4 HIGHLY EFFECTIVE AND ECONOMICAL HG COMPLIANCE TECHNOLOGY

▶ Co-Chair | Bobby Chen, Client Program Manager, Shaw Group

C9.5 CONTINUOUS MERCURY CONTROL AT PPL MONTANA CORETTE STATION WITH CONCRETE-FRIENDLY C-PAC SORBENT

Ron Landreth, Manager Customer Technical Service, Albemarle Mercury Control

D3. ECONOMIC, ENERGY & CYBER SECURITY

D3.1 LESSONS THAT RENEWABLE ENERGY HAS TAUGHT THE ENERGY INDUSTRY: BEST PRACTICES FOR ENERGY SECURITY

Lara Helfer, Senior Program Manager - Energy, AECOM

D3.2 SUPPLYING RARE EARTHS FOR RENEWABLE ENERGY TECHNOLOGY DEPLOYMENT Paul Bailey, Associate, ICF International; Terry Unger

D3.3 DOD DEMAND RESPONSE PROGRAM

Paul Hahn, Senior Counsel, Defense Logistics Agency-Energy

D3.4 STATUS OF CYBER SECURITY REQUIREMENTS AND GUIDELINES FOR UTILITIES

▶ Co-Chair | Alex Dely, Contracts Manager, Raytheon Missile Systems

D3.5 ADVANTAGES OF AN INTEGRATED FACTORY ACCEPTANCE TEST IN AN ICS **ENVIRONMENT**

▶ Co-Chair | Jerome Farquharson, Practice Manager, Burns & McDonnell Engineering; Anna Wang

7:30AM - 9:30AM

Tuesday | January 31

Session Sponsor and Co-Chair



Jerome Farauharson



Alex Delv



Wednesday | February 1

Tuesday | January 31

10AM - 12PM

D4. US CLIMATE POLICY & ANALYSIS

ENERGY & CLIMATE

and Co-Chair

Session Sponsor D4.1 THE US CLIMATE POLICY LANDSCAPE: POLICY SCENARIOS FOR ELECTRIC UTILITIES

▶ Co-Chair | Rob Barnett, Energy Analyst, Bloomberg Government

D4.2 IMPACTS OF FUTURE CLIMATE CHANGE ON US ENERGY DEMANDS & EMISSIONS

Jessica Montanez, Master's Student, UNC Chapel Hill; Dan Loughlin, Cynthia Gage and Bryan Hubbell, USEPA: Jason West and Barron Henderson UNC Chapel Hill

Bryan Hannegan

D4.3 PRISM 2.0: THE VALUE OF INNOVATION

▶ Co-Chair | Bryan Hannegan, Vice President - Environment and Renewables, Electric Power Research Institute

D4.4 MANAGING CARBON WITHOUT CAP & TRADE

Bloomberg Victor Niemeyer, Technical Executive, EPRI

D4.5 "CAP-AND-TRADE" SYSTEMS & ITS EFFECT ON U. S. REFINING & MARKETING Bill Smalling, Attorney, C William Smalling, PLLC

D4.6 ASSESSMENT OF EMISSIONS CHANGES FROM US DOE LOAN GUARANTEE PROJECTS

Colin High, Principal Consultant, Resource Systems Group Inc.

1PM - 3PM

GOVERNMENT

Rob Barnett

D5. ENERGY POLICY

Session Sponsor and Co-Chair

D5.1 THE CONTINUING SHALE GAS STAMPEDE

▶ Co-Chair | Mitchell Baer, Director - Office of Oil & Gas Analysis, Office of Policy & International Affairs, US DOE

D5.2 LONG DISTANCE UNDERGROUND HVDC TRANSMISSION VIA ELPIPES

Roger Faulkner, President, Electric Pipeline Corporation

Mitchell

Baer

D5.3 INSIGHTS INTO POTENTIAL FUTURES FOR SOLAR POWER - FROM THE EPRI US-REGEN ENERGY TECHNICAL & ECONOMIC MODEL

James Merrick, Project Manager, Electric Power Research Institute (EPRI)

D5.4 THE STATE OF U.S. ENERGY INNOVATION POLICY

Matthew Stepp, Clean Energy Policy Analyst, Information Technology & Innovation Foundation

D5.5 WHAT TO DO ABOUT CLIMATE CHANGE? A SIMPLE THREE-STEP PLAN

Elton Sherwin, Sr. Managing Director, Ridgewood Capital

D5.6 ROADBLOCKS TO RENEWABLE INTEGRATION

▶ Co-Chair | Charlie Bayless, Former Utility CEO, Tucson Electric Power and Dynergy

3:30PM - 5:30PM D6. STATE & REGIONAL

D6.1 UPDATE ON NORTHEAST/MID-ATLANTIC CLEAN FUELS PROGRAM

▶Co-Chair | Michelle Manion, Climate and Energy Team Leader, NESCAUM

D6.2 ANALYZING GHG IMPACTS UNDER CEQA

Everest Yan, Senior Engineer, PCR Services Corp

D6.3 A STRATEGIC PLAN FOR ARIZONA'S SOLAR FUTURE

Michelle De Blasi, Partner, Quarles & Brady, LLP

D6.4 POTENTIAL FEDERAL NEXUS GHG PERMITTING IN TEXAS

Bill Jamieson, Senior Program Manager, SWCA Environmental Consultants; Jim Jones

D6.5 ECONOMIC IMPACT OF RGGI: FOLLOWING THE DOLLARS

Susan Tierney, Managing Principal, Analysis Group

D6.6 REGULATORY TRENDS IN STATE GOVERNMENT

▶ Co-Chair | David Van Wie, Principal Scientist, AMEC; Alicia Robinson, Annette McLean

D6.7 INTERACTION EFFECT BETWEEN DETERMINANTS OF ENERGY INTENSITY IN THE U.S

Adedolapo Akinde, PhD Student, UNC at Charlotte; Dr. Peter Schwarz

D7. CALIFORNIA INITIATIVES

D7.1 UPDATE ON THE STATUS OF CALIFORNIA'S GHG CAP-AND-TRADE PROGRAM Myriam Mills, Project Manager, CDM

D7.2 STRATEGIES FOR COMPLYING WITH CURRENT GHG REGULATIONS IN CALIFORNIA Allison Smith, Attorney, Stoel Rives LLP

D7.3 CALIFORNIA'S CLIMATE CHANGE INITIATIVE: A BRIDGE TO WHERE? Steve Hoch, Partner, Brownstein Hyatt Farber Schreck; Les Lo Baugh

D7.4 CARB'S AB32 RULES AND CALIFORNIA POWER MARKETS

▶ Co-Chair | Andy Van Horn, Managing Director, Van Horn Consulting

D7.5 LINKING CALIFORNIA TO THE WCI: PRACTICAL CHALLENGES IN CREATING THE WORLD'S SECOND LARGEST INTERNATIONAL CARBON MARKET

▶ Co-Chair I David Hunter, US Director, IETA

D7.6 CALIFORNIA CAP-AND-TRADE: HOW TO PREPARE IN 2012

James Westbrook, President, BlueScape Environmental

7:30AM - 9:30AM

Session Sponsor and Co-Chair



David Hunter

D8. ENERGY & CLIMATE

10:00AM - 12:00PM

D8.1 RESILIENT ENERGY INFRASTRUCTURE RESPONDING TO IMPACTS OF CLIMATE CHANGE

▶ Co-Chair | Mike Nolan, Associate Director - Sustainability & Climate Change, AECOM

D8.2 WINTER 2010-11 OZONE MEASUREMENTS IN UTAH'S UINTA BASIN

Scott Hill, Director, EDL Eastern Utah Operations: Randal Martin, Utah State University; Kori Moore and Howard Shorthill, USURF's EDL; Kiera Harper, UDAQ

D8.3 ENERGY SYSTEM TRANSITION UNDER MANDATES AND CAP AND TRADE

▶ Co-Chair | Scott Bloomberg, Vice President, NERA Economic Consulting; Sugandha Tuladhar, Paul Bernstein, David Montgomery, Anne Smith and Mei Yuan

D8.4 U.S. CARBON MARKETS 2009-2011: EVOLUTION AND UNCERTAINTY

Jim Woodward; Alternative Energy and Sustainability, Deloitte Consulting, LLP

D8.5 CANADA'S PROPOSED CO2 REDUCTION REGULATION FOR COAL-FIRED POWER Lisa DeMarco, Partner, Norton Rose Canada

D8.6 AB32: CAP AND TRADE STRATEGIES AND PORTFOLIO OPTIMIZATION

Randy Lack, Chief Marketing Officer, Element Markets

Monday | January 30

1PM - 3PM Session Sponsor

@**⊙**talitv

Don

Karner

E1. ELECTRIC VEHICLES

Track / | WIND, SOLAR & EV |

E1.1 STRUCTURAL ECONOMIC MODELING OF ELECTRIC VEHICLE ADOPTIONS and Co-Chair Matthew Bingham, Principal Economist, Veritas Economics; Jason Kinnell

E1.2 EV CHARGERS TO GRID: LESSONS LEARNED

▶ Co-Chair | Don Karner, President of ECOtality North America, ECOtality

E1.3 ADVANCED SOFTWARE INFRASTRUCTURE FOR ELECTRIC VEHICLES

Geoff Ryder, Principal - Transportation & Energy, SAP Labs, LLC; Gil Perez & Timo Stelzer

E1.4 ENCOURAGING USE OF RENEWABLE ENERGY IN THE ELECTRIC VEHICLE INDUSTRY Brendan Cook, Analyst, Center for Resource Solutions

E1.5 OF VOLTS AND LEAVES: NON-PLUGIN SERIES HYBRID CARS MAY CAUSE FEWER GHG THAN PLUG-IN HYBRIDS OR FULLY ELECTRIC CARS

▶ Co-Chair | Christoph Meinrenken, Research Scientist, Earth Institute at Columbia University: Siddharth Ramesh, Klaus Lackner

E1.6 PRACTICALITY OF RETROFITTING FLEET VEHICLES WITH PHEV TECHNOLOGY Dennis Baranik, Vice President of Sales and Marketing, ALTe Powertrain Technologies

E4. SOLAR PROJECTS & STRATEGIES

E4.1 SREC MARKETS: EARLY MARKET EXPERIENCE AND LESSONS

▶ Co-Chair | Jenny Heeter, Senior Analyst, NREL; Lori Bird and Claire Kreycik

E4.2 THREE STRATEGIES FOR ADVANCING U.S. CSP

▶ Co-Chair I Jim Pickles, Senior Director of Product Management, AREVA Solar, Inc.: Ron

E4.3 SOLAR PV PROJECTS IN BLDGS AND FLOOD CONTROL ZONES

Dilip Khatri, Principal Structural Engineer, URS

E4.4 LEVERAGING SOLAR ENERGY TO CONNECT UTILITIES WITH END CUSTOMERS Angiolo Laviziano, CEO, REC Solar

E4.5 UTILITY-SCALE DEPLOYMENT OF GRID-CONNECTED SOLAR PV SYSTEMS IN ILLINOIS Jin Jo. Assistant Professor, Illinois State University

E4.6 YOUR PRESENTATION COULD GET BETTER RESULTS

Chris Reich, Business Physicist, TeachU

10AM - 12PM Session Sponsor and Co-Chair



Jenny Heeter



Jim **Pickles**

3:30PM - 5:30PM E2. EV-PV, CPV & BATTERIES

E2.1 BACK TO THE FUTURE: NEW ADVANCES IN GREEN BATTERY DESIGN Rob Guyton, CEO, Encell Technology

E2.2 NATURAL GAS VEHICLE FLEET CONVERSIONS IN THE UTILITY INDUSTRY

Dave Heitz, Sr. Engineer, Geosyntec Consultants

E2.3 RARE EARTH ELEMENTS & GREEN ENERGY TECHNOLOGY: PRELIM. HAZARD ANALYSIS Ari Lewis, Sr. Toxiologist, Gradient; Dave Mayfield and Kim Ried

E2.4 A LOW CARBON STRATEGY FOR FUELING THE U.S. ELECTRIC VEHICLE FLEET IN 2050

▶ Co-Chair | Luke Leaver, Researcher, Asia Pacific Energy Research Centre; Ralph Samuelson, APERC; Jonathan Leaver, United Institute of Technology

E2.5 CPV + WDG = SUCCESSFUL MODEL FOR UTILITY-SCALE SOLAR DEPLOYMENTS Guy Blanchard, Senior Vice President, Amonix, Inc.

E2.6 PV & CPV COMPETING WITH COMMODITY ELECTRICITY

► Co-Chair I Paula Mints, Director - Principal Solar Analyst, Navigant

E5. WIND DEVELOPMENTS

E5.1 WHY PRODUCT DETAIL & SUPPLY CHAIN DOMESTICATION MATTER

▶ Co-Chair | Joe Baker, Chief Executive Officer, ACCIONA Windpower North America

E5.2 WIND CURTAILMENT RULES COMPLICATE PROJECT FINANCE FOR LENDERS & **DEVELOPERS**

William Monsen, Principal, MRW & Associates, LLC; Laura Norin, MRW & Associates, LLC

E5.3 ESTABLISHING A COMPLIANCE MANAGEMENT PROGRAM FOR WIND FARMS Ed Tracey, Director - Licensing & Permitting Group, Constellation Energy; Leah Blinn

E5.4 LESSONS LEARNED: HOW CAN UK OFFSHORE WIND DEVELOPMENT HELP US IN THE US Patricia Fleischauer, Partner, Environmental Resources Management; Sophie Wright

E5.5 HYBRID GAS/WIND PLANTS

► Co-Chair | Eamonn McCormick, CEO, Tri Modal Energy

1PM - 3PM

Session Sponsor and Co-Chair



Eamonn **McCormick**

Tuesday | January 31

7:30AM - 9:30AM E3. SOLAR FEASIBILITY & ASSESMENT



Taylor

#UNIRAC

Juan Suarez

E3.1 UTILITY-SCALE SOLAR PROJECTS IN CALIFORNIA - THE KEYS TO DEVELOPMENT PERMITS IN DESERT AREAS AND ON FARMLAND Kristin Castanos, Attorney, Stoel Rives LLP

E3.2 STRUCTURAL CODES IN SOLAR - THE TIME IS NOW

▶ Co-Chair | Juan Suarez, Senior Director of Engineering & Program Mgmt., Unirac

E3.3 RISK MANAGEMENT IN PHOTOVOLTAIC MOUNTING SYSTEM DESIGN Wolfgang Fritz, Vice President of Engineering, Schletter Inc.

E3.4 PV POWER PLANT CONSIDERATIONS

Lane S. Garrett, P.E., C.E.M., CEO, ULG Energy Solutions, Inc.

E3.5 DEVELOPMENT OF 5V CATHODE AND ELECTROLYTE MATERIALS

Steven Kave, Chief Scientific Officer, Wildcat Discovery Technologies E3.6 WHO HOLDS THE BAG? ASSESSING UTILITY-SCALE PV PROJECT RISK

▶ Co-Chair | Mat Taylor, Senior Engineer/Project Manager, Tetra Tech

E6. WIND DEVELOPMENT & SITING

E6.1 MORE POWER RENEWABLE PLACEMENT TECHNOLOGY Randy Alliss, Energy Manager, Northrop Grumman Corporation

E6.2 EVALUATION OF WIND TURBINE-RELATED NOISE

▶ Co-Chair | Annette Rohr, Senior Technical Manager, Electric Power Research Institute; Shannon Magari, Colden Corporation; Martin Schiff, Lally Acoustical Consulting

E6.3 SMALL WIND TURBINE ARMY COMPATIBILITY TEST AT FORT DRUM, NEW YORK William Stein, Research Mechanical Engineer, U.S. Army ERDC-CERL; Kelley MacDonald and Charles Rverson

E6.4 NIMBY: NOT A FOUR LETTER WORD

Tiff Thompson, Principal, NIMBY Consulting

E6.5 VISUALIZATION & IMAGE MGMT. STRATEGIES FOR MORE EFFICIENT SITING & DESIGN David Lawrence, Visual Simulation - Multimedia Specialist, URS Corporation; Louise Kling

E6.6 WIND POWER PROJECT DEVELOPMENT - RISKS AND OPPORTUNITIES

► Co-Chair | Eric Luesebrink, Managing Director, Edison Mission Energy

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Annette Rohr



Eric Luesebrink



Safe CO₂ Geologic Storage ...anywhere in the world

- Applied risk mitigation and performance assessment -- protocols
- Knowledgeable regulatory frameworks world geologic standards
- Public Trust community engagement and education
- Asset evaluation -- storage capacity evaluation and design

Independent, Reliable Risk Assessment and Mitigation

The Incident Response Protocol developed by IPAC-CO2 is an example of applied performance and risk assessment using our network of excellence. The protocol was deployed on the Kerr farm near the Weyburn project by IPAC-CO2 which concluded CO_2 was not leaking from depth. Performance audits and research are our next focus of attention.

Regulatory Frameworks and Compliance

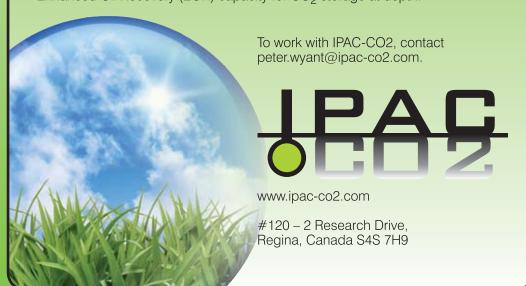
Since 2009, researchers at IPAC-CO2 have been working with CSA Standards to develop the world's first standard for geologic storage of carbon dioxide. Our current focus is to assist companies with developing compliance measures.

Public Trust

IPAC-CO2 develops community engagement tools in order to raise awareness and understanding of carbon capture and storage as a Clean Development Mechanism.

Research and Information

IPAC-CO2 researchers identified potential sinks for geological storage of CO₂ in Saskatchewan with their storage capacities. IPAC-CO2 now is researching Enhanced Oil Recovery (EOR) capacity for CO₂ storage at depth.



Room 224 A & B | CCS & CARBON MANAGEMENT | Track

Monday | January 30

F1. CORPORATE STRATEGIES/RISK MANAGEMENT

F1.1 CORPORATE STRATEGIES FOR RENEWABLE ENERGY IMPLEMENTATION Robby Richards, CEO, Copernicus Energy, Inc.

F1.2 FAST-TRACK PERMITTING APPROACHES FOR ACHIEVING USA AND INTERNATIONAL SOCIAL LICENSE TO OPERATE

▶Co-Chair | John Aronson, President, AATA International, Inc.; Justin Seweryn

F1.3 ACHEIVING PROJECT COMPLIANCE AND QUALITY ASSURANCE Kevin Wedman, Vice President, Bureau Veritas North America, Inc.

F1.4 BENEFITS, RISKS & KEY CHALLENGES FOR AGGREGATING GHG EMISSIONS OFFSETS
Adam Diamant, Senior Project Manager, Electric Power Research Institute (EPRI)

F1.5 MEDIUM, MESSAGE AND MESSANGER - EFFECTIVE CCS COMMUNICATION

▶Co-Chair | Carmen Dybwad, CEO, IPAC-CO2

1PM - 3PM

Session Sponsor and Co-Chair



John Aronson



Dybwad

F2. CARBON MANAGEMENT

F2.1 THERMAL OXIDATION AS A MEANS TO CARBON OFFSET GENERATION
Jim Stone, Senior Manager, Durr Systems, Inc

F2.2 CONTROLLING YOUR CARBON EMISSIONS BEFORE THEY CONTROL YOU: A ROADMAP FOR ENTERPRISE GHG MANAGEMENT

Jeff Nobles, Enablon Carbon Product Manager, Enablon

F2.3 CARBON SEQUESTRATION PILOT PROJECT AT TEC POLK POWER STATION

► Co-Chair | Bradley Pekas, Vice President, Environmental Consulting & Technology, Inc., David Lukcic, Tampa Electric Company

F2.4 INCIDENT INVESTIGATION - HOW TO RESPOND TO ALLEGATIONS OF CO2 GEOLOGIC STORAGE LEAKS

► Co-Chair | George(Jerry) Sherk, COO, IPAC-CO2

F2.5 LIFE CYCLE CARBON IMPACTS OF UTILITY SCALE PHOTOVOLTAIC PROJECTS

Parikhit Sinha, Director - Sustainable Development, First Solar

3:30PM - 5:30PM

Session Sponsor and Co-Chair



George Sherk

Tuesday | January 31

F3. MANAGING RISK AND PROJECT FINANCE

F3.1 INVESTOR REPORTING

Bonnie Sharphouse, Senior Specialist Reporting, Hess Corporation

F3.2 OPTIMIZING ENVIRONMENTAL SPENDING AND RISK

►Co-Chair | Jim Pardikes, Vice President of Capital Planning, MCR Performance Solutions

F3.3 HOW TO INVEST IN THE NEW GHG CONSTRAINED FINANCIAL MARKETS IN THE LIGHT OF THE FINANCIAL REFORM

Nedia Miller, Principal, MILLER CTA

F3.4 THE BEST RISK MANAGEMENT: KNOW YOUR SITE AND WHAT IS IMPORTANT

►Co-Chair | Peter Wyant, Chief Development Officer, IPAC-CO2; Majid Nasehi

7:30AM - 9:30AM

Session Sponsor and Co-Chair



Jim Pardikes



Peter Wvant



Track F | CCS & CARBON MANAGEMENT | Room 224 A & B

Tuesday | January 31

10AM - 12PM

Session Sponsor

and Co-Chair



Wolfgang Schoerner F4. CCS

F4.1 CARBON CAPTURE & SEQUESTRATION: NECESSARY LEGAL & REGULATORY CHANGES Les Lo Baugh, Partner, Brownstein Hyatt Farber Schreck; Morgan Evans

F4.2 COMMERCIALIZATION OF ALSTOM'S CHILLED AMMONIA TECHNOLOGY

David Muraskin, Technology Manager, ALSTOM Power Inc.; Fred Kozak and Rameshwar Hiwale, Alstom: Rob Bollinger, AEP

F4.3 NOVEL SOLVENT - GAS CONTACTOR FOR CO2 CAPTURE COST REDUCTION

▶ Co-Chair | Brandon Pavlish, Research Manager, EERC; Joel Downs and Nathan Fiala

F4.4 CO2 REMOVAL - CHALLENGES AND SOLUTIONS

▶ Co-Chair | Wolfgang Schoerner, Director - HyCO Business Unit, Linde Engineering

F4.5 RELATIONSHIP BETWEEN ABUNDANCE OF NOCTILUCA SCINTILLANS & **ENVIRONMENTAL FACTORS IN CHAHBAHAR BAY**

Neda Fazeli, Iranian National Oceanography Center: Rasool Zare

1PM - 3PM

F5. CCS TECHNOLOGIES I

F5.1 FALCON TECHNOLOGY: COST REDUCTION IN CARBON SEQUESTRATION Lawrence Dressler, President, Tomorrow Biofuels LLC

F5.2 MHI'S KM-CDR POST-COMBUSTION CO2 CAPTURE PROCESS AND COAL-FIRED 500 **TPD DEMONSTRATION UPDATE**

▶ Co-Chair | Steven Holton, Director - Business Development, Mitsubishi Heavy Industries America, Inc.

F5.3 SOLID SORBENTS AS A RETROFIT CO2 CAPTURE TECHNOLOGY

Travis Starns, Manager Emission Control Projects, ADA-ES, Inc. F5.4 ENZYME-CATALYZED CO2 CAPTURE IN LOW ENERGY SOLVENTS

▶ Co-Chair | Alex Zaks, CTO, VP Research, Akermin, Inc.

F5.5 ENZYME-ENABLED CO2 CAPTURE: LOWERING THE CCS COST BARRIER

Jonathan Carley, Vice-President - Business Development, CO2 Solution Inc; James Lalonde, Codexis, Inc.

F5.6 LOW TEMP. CO2 SORBENTS ON THERMODYNAMIC & CYCLIC ADSORPTION STUDIES

Fengsheng Su, Post-Doctoral fellow, National Chung Hsing University; Chungsying Lu

3:30PM - 5:30PM F6. CCS TECHNOLOGIES II

Session Sponsor and Co-Chair



Brandie Sebastian F6.1 A SUMMARY OF CCS TECHNOLOGIES & CO2 USE OPTIONS

▶ Co-Chair | Brandie Sebastian, Project Engineer, ERM; Jennifer Gunnulfsen and Leonard Rafalko, ERM; John Sherwell and Paul Petzrick, Maryland DNR PPRP

F6.2 PCOR: A REGIONAL CARBON SEQUESTRATION PARTNERSHIP

Wesley D. Peck, Research Manager, Energy & Environmental Research Center; Edward Steadman, John A. Harju, Charlie D. Gorecki, Lisa S. Botnen, Daniel J. Daly & Melanie D.

F6.3 WHAT COMBINED CALORIMETRIC & VOLUMETRIC TECHNIQUES CAN DO FOR CO2 **SEPARATION APPLICATIONS**

Andre Levchenko, Applications Scientist, Setaram Inc.; Steve Karim, Remi Andre and **Emmanuel Wirth**

F6.4 AUTOTHERMAL METHOD FOR REMOVING CARBON DIOXIDE FROM FLUE GAS

Hugo Caram, Professor of Chemical Engineering, Lehigh Universiy; Alberto LaCava

F6.5 FTIR MONITORING SYSTEM PROVIDES TIGHTER CONTROL ON EMISSIONS FROM **CARBON CAPTURE PROCESS**

Jim Cornish, Sales & Technical Support, Gasmet Technologies, Inc.; Luc Sevrette and Jacques Bourbonnais



Southern Research engineers will be in Booth #726 at EUEC.

Stop by and talk with us about:

- Advance booking for Standard SCR Catalyst Testing with guaranteed turnaround times in our micro-reactor facilities and new bench-scale facility, the only independent-provider operated facility in the U.S.
- Consulting and on-site measurements or pilot-scale demonstrations to help coal-fired utilities comply with EPA's Mercury and Air Toxics Standards (MATS)
- Pilot-scale testing of flue-gas additives and processes in our coal combustion research facility
- Utility plant water conservation, re-use, and treatment
- Testing new solvents for CO₂ capture with real syngas and flue gas
- Verification of de-NO capability or mercury oxidation potential of **SCR** catalysts

For comprehesive information about our services and capabilities, visit www.SouthernResearch.org.

For information about SCR Catalyst Testing or any of our other services, contact Tom Gale at 800-967-6774, (205) 581-2102, or Gale@SouthernResearch.org.

SOUTHERN RESEARCH

Legendary Discoveries. Leading Innovation.



Monday | January 30

1PM - 3PM

G1. CARBON FOOTPRINT

and Co-Chair

Diem

Session Sponsor G1.1 CARBON FOOTPRINTS FOR WASTEWATER FACILITIES AND LANDFILLS Sarah Cwikla, Senior Project Manager, GHD Inc.; Wayne McFarland

G1.2 CARBON INVENTORIES AND FOOTPRINTS: DOES ONE SIZE FIT ALL?

▶ Co-Chair |) John Fillo, Principal Consultant, Trinity Consultants, Inc.; Maren Seibold

G1.3 USING EGRID DATA FOR CARBON FOOTPRINTING ELECTRICITY PURCHASES

▶ Co-Chair | Art Diem, Environmental Engineer, U.S. Environmental Protection Agency; Susy S. Rothschild and Cristina Quiroz, TranSystems | E.H. Pechan

G1.4 REDUCING THE CARBON FOOTPRINT IN THE AMERICAS: IS IT WORTH THE COST?

James Taylor, Senior Fellow, Environment Policy, The Heartland Institute

G1.5 DEVELOPING APPROPRIATE GHG MITIGATION STRATEGIES AT THE UNIVERSITY OF **ARIZONA**

G2.1 BUSINESS ALTERNATIVES IN THE CALIFORNIA GHG MODEL, A PROFORMA STUDY

Joe Abraham, Office of Sustainability Director, The University of Arizona (NOT ATTENDING) EFFECTIVE MESSAGING IN TODAY'S GREEN MARKET

Carolyn Parrs, President, Mind Over Markets

G4. CORPORATE STRATEGIES

G4.1 AN INLAND WATER TRANSPORTATION COMPANY'S SUSTAINABILITY STRATEGY ▶ Co-Chair | Leigh Ann Baird, Vice President - Strategic Planning and Sustainability, Ingram Barge Company

G4.2 CORPORATE CLIMATE CHANGE: PROGRESS AND PERFORMANCE Michal Pelzia, Manager - Reporting, Hess Corporation

G4.3 PROTOCOLS FOR SUPPLY- AND DEMAND-SIDE GHG REDUCTIONS

▶ Co-Chair | Yolanda Pagano, Director - Sustainable Solutions & Strategies, O'Brien & Gere; Desiree Rammon and Aniket Sawant

G4.4 IMPLICATION OF THE ENERGY POLICY TO THE LIFE CYCLE OF A PRODUCT SYSTEM Jun-Ki Choi, Goldhaber Distinguished Fellow, Brookhaven National Laboratory

G4.5 BREAKING DOWN BARRIERS TO THE CARBON MARKET Dick Kempka, Vice-President, The Climate Trust

10AM - 12PM

Session Sponsor and Co-Chair

O BRIEN & GERE

Yolanda Pagano

Leigh Ann Baird

3:30PM - 5:30PM

G2. PLANNING & GHG REPORTING

Session Sponsor and Co-Chair

enviance (

Larry

Goldenhersh

Lisa Peavy

Jesse Frederick, Vice President, WZI Inc.

G2.2 THE NEW ERA AND IMPACT OF ENVIROFINANCE

▶ Co-Chair | Lawrence Goldenhersh, President and CEO, Enviance

G2.3 NEW GHG REGULATION AND ITS IMPACT ACROSS ENERGY INDUSTRY

Jagatheesan Senthilvel, Project Manager - SELECT, WorleyParsons Group Inc.; Joe Takats

G2.4 IMPLEMENTING BEST PRACTICES TO ENSURE YOUR INFORMATION MANAGEMENT SYSTEM ACHIEVES YOUR COMPANY'S COMPLIANCE AND SUSTAINABILITY OBJECTIVES Lisa Thompson, Senior Consultant, IHS

G2.5 COMMERCIALLY-AVAILABLE SOFTWARE TO STORE, TRACK & REPORT GHG EMISSIONS ▶ Co-Chair | Lisa Peavy, Product Manager, Environmental Systems Corporation

G2.6 NEW TOOLS TO EMPLOY PRODUCT CARBON FOOTPRINTING FOR LARGE SCALE CORPORATE GHG REDUCTION STRATEGIES

Christoph Meinrenken, Research Scientist, Earth Institute at Columbia; Klaus Lackner

G5. GHG MONITORING & CERTIFICATION

G5.1 REDUCING COSTLY PHANTOM GHG EMISSIONS THROUGH TRACKING Ted Atwood, President, Polar Technology LLC: Chase Sanders

G5.2 DRAFTING ARBITRATION CLAUSES FOR ENERGY COMPANIES

David Cox, Vice President, American Arbitration Association; Maureen Beyers

G5.3 RETHINKING OUR CLIMATE METRICS FROM AN LCA STANDPOINT: SERC CASE STUDY

▶ Co-Chair I Stan Rhodes, President & CEO, Scientific Certification Systems: Keith Killpack

G5.4 GHG INVENTORIES THE EASY WAY

Mike Baghoomian, Solution Engineer, Northrop Grumman Corporation

1PM - 3PM

Session Sponsor and Co-Chair



Stan Rhodes

Tuesday | January 31

7:30AM - 9:30AM G3. GHG - BACT

Session Sponsor Mark DiPrinzio, Partner, ERM; John Sherwell, MD DNR Power Plant Research Program

G3.1 GHG BACT FOR EGUS - EARLY RESULTS AND TRENDS

and Co-Chair G3.2 GHG'S & THE BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATIONS

Gurinder Saini, Senior Environmental Enaineer, RTP Environmental Associates, Inc.; Garv McCutchen and Colin Campbell

A≣COM

Sara Head G3.3 PALMDALE HYBRID POWER PROJECT PERMITTING CASE STUDY-GHG BACT ANALYSIS

▶ Co-Chair | Sara Head, Vice President, AECOM; Howard Balentine

G3.4 THE FIRST LIMIT - COAL-FIRED GHG BACT CASE STUDY Michael Zebell, Senior Consultant, ERM; Steven Kohl, Warner Norcross & Judd LLP

G3.5 SHOULD THERE BE GHG BACT FOR NEW NATURAL GAS FIRED POWER PLANTS?

▶ Co-Chair | Victoria Evans, Practice Lead, Climate Change Services, ERM; Scott Weaver

G3.6 LESSONS LEARNED IN PERFORMING GHG BACT ANALYSES

Doug Huxley, Prinicipal Technologist, CH2M HILL

G6. GHG PERMITS

G6.1 NSR GHG PERMITS - WHAT IS BEING REQUIRED

▶ Co-Chair | Kenneth Weiss, Managing Partner - Global Air and Climate Change Practice, ERM

G6.2 LEGAL CHALLENGES TO EPA'S GREENHOUSE GAS PROGRAM Allison Wood, Partner, Hunton & Williams LLP

G6.3 FEDERAL GHG REGULATION: IMPLICATIONS FOR BUSINESS

▶ Co-Chair | Marisa Buchanan, Energy Analyst, Bloomberg Government

G6.4 WHAT TO DO WHEN EPA BECOMES THE PERMITTING AUTHORITY Eric Quiat, Project Engineer, Zephyr Environmental Corporation

G6.5 BEST PRACTICES FOR COMPLIANCE WITH THE EPA MANDATORY REPORTING RULE Marc Dillon, Product Manager, IHS

G6.6 "SUBJECT TO REGULATION": THE ROSETTA STONE FOR GHG PSD APPLICABILITY Angela Morrison, Partner, Hopping Green & Sams, P.A.

3:30PM - 5:30 PM

Session Sponsor and Co-Chair



Kenneth Weiss

Bloombera GOVERNMENT Marisa

Buchanan

© SEUEC 2012



Monday | January 30

7:30AM - 9:30AM G7.BACT FOR GHG

Wednesday | February 1

Session Sponsor and Co-Chair

Crum

G7.1 GHG BACT OVERVIEW

Matthew Harrison, National Practice Leader, Project Manager, URS Corporation

G7.2 OVERVIEW OF USEPA'S GHG BACT GUIDANCE DOCUMENTS

► Co-Chair | Ron Crum, Vice President, URS Corporation

G7.3 GHG SPECIFIC CONSIDERATIONS IN THE 5-STEP BACT PROCESS

Shirley Pearson, P.E., Vice President, Principal Engineer, URS Corporation

G7.4 DO I NEED TO WORRY ABOUT CARBON CAPTURE AND SEQUESTRATION?Matthew Harrison, National Practice Leader, Project Manager, URS Corporation

G7.5 AVOIDING IMPOSITION OF CCS IN THE PERMITTING PROCESS

Ron Crum, Vice President, URS Corporation

G7.6 CARBON PRICING - WHAT CAN WE EXPECT?

Greg San Martin, Sr. GHG Engineer, URS Corporation

H1. ALGAE

H1.1 ACCORDION PHOTOBIOREACTOR FOR MICROLGAE PRODUCTION

►Co-Chair | Joel Cuello, Professor, The University of Arizona; Takanori Hoshino, Sara Kuwahara, Cody Brown and Joseph Ley

H1.2 OUR MOST CRITICAL RENEWABLE ENERGY -- FOOD

▶Co-Chair | Mark Edwards, Professor, Arizona State University

H1.3 FLOATING PHOTOBIOREACTORS FOR MICROALGAE GROWTH IN WASTEWATER
Brian McConnell, Undergraduate Student, University of New Hampshire; Dr. Ihab Farag

H1.4 SALT-WATER MICROALGAE GROWTH FOR BIODIESEL PRODUCTION IN A HOT CLIMATE, OPEN POND SYSTEM

Rebecca Wilson, Student, University of New Hampshire; Ihab H Farag

H1.5 SOLAR PHOTOBIOREACTORS FOR MICROALGAE CULTURES - VALLE DEL CAUCA, COLOMBIA

Jose Ramirez, M,Sc. Engineering, Universidad Autonoma de Occidente

H1.6 BIODIESEL: UTILIZATION OF WASTE WATER TO CULTIVATE MICROALGAE OIL FEEDSTOCK WITH CO2 SEQUESTRATION AND NITRATE DEPRIVATION

Gina Chaput, Student Researcher, U of New Hampshire; Kyle Charmanski; Dr. Ihab Farag

1PM – 3PM

Session Sponsor and Co-Chair



Joel Cuello



Mark Edwards

10AM - 12PM

Session Sponsor and Co-Chair



Shirley Pearson

G8. BACT FOR GHG – WHERE DO WE STAND AFTER ONE YEAR?

G8.1 REVIEW OF RECENT GHG BACT DECISIONS IN THE US

Anne Runnalls, Senior Air Quality Engineer, URS Corporation

G8.2 GHG BACT COST EFFECTIVENESS CALCULATIONS - GETTING IT RIGHT

▶ Co-Chair | Shirley Pearson, P.E., Vice President, Principal Engineer, URS Corporation

G8.3 COMPLEMENTING CAP AND TRADE: AN ASSESSMENT OF CALIFORNIA'S CLIMATE

Obadiah Bartholomy, Project Manager, Sacramento Municipal Utility District

G8.4 SUMMARY - STRATEGIES FOR GHG BACT - WHAT HAVE WE LEARNED TODAY?Ron Crum, Vice President, URS Corporation

G8.5 WORKSHOP WRAP-UP - PANEL DISCUSSION WITH Q&A All speakers

H2. BIOFUELS / ETHANOL

H2.1 OXYGEN REFORMING OF TAR AND METHANE IN BIOMASS-DERIVED SYNGAS

▶ Co-Chair | Lawrence Bool, Sr. Development Professional, Praxair, Inc.; Bradley Damstedt, Hisashi Kobayashi, and David Thompson

H2.2 BIOFUELS - COMPLEX PERMITTING AND DEVELOPMENT CONSIDERATIONS

► Alicia Smith, Partner, ERM

H2.3 ACCELERATED EXAMINATION OF INDUSTRIAL BIOTECH PATENT APPLICATIONS
Lori Brandes, Associate, Sterne, Kessler, Goldstein & Fox P.L.L.C.: Peter Jackman:

H2.4 EFFECT OF WASTEWATER REUSE FOR THE BIOFUEL CROPS IRRIGATION IN COLOMBIA

Jose Ramirez, M.Sc. Engineer, Universidad Autonoma de Occidente; Julian Lasso

H2.5 NOVEL INTEGRATED CATALYTIC HOT SYNGAS CLEANUP

Austin Vaillancourt, Associate Chemical Engineer, Southern Research; Andrew Lucero, Santosh Gangwal

H2.6 FERMENTATION STUDY ON SARGASSUM SPP FOR SUSTAINABLE BIOETHANOL PRODUCTION

Myra Borines, Ph.D. Candidate, The University of Arizona; Joel L. Cuello, U of Arizona, Rizalinda DeLeon, Univ. of the Philipppines

3:30PM - 5:30PM

Session Sponsor and Co-Chair

PRAXAIR

Lawrence Bool



Alicia Smith

7:30AM - 9:30AM

Session Sponsor

and Co-Chair

Hoekman

One Sponsorship Available for EUEC 2012

Contact EUEC by Feb 3, 2012

POLICIES

Your company logo and advertisement included on the EUEC flash-drive containing all 600+ PowerPoint presentations, and audio mailed to all 2,000+ full conference attendees.

EUEC 2012 Proceedings Flash Drive (\$10,000)



Tuesday | January 31

H3. BIOMASS I

H3.1 MODIFICATION OF THE CATALYST TO ENHANCE PERFORMANCE IN BIOMASS UNITSRonald Barnett, Sales Manager - USA, STEAG Energy Services LLC; Doug York, EWP
Renewable Corp.

H3.2 CATAWBA COUNTY'S ADVANCED BIOMASS GASIFICATION CHP FACILITY Barry Edwards, Director of Utilities & Engineering, County of Catawba

H3.3 RENEWABLE SOLID FUELS VIA HTC OF CELLULOSIC BIOMASS

►Co-Chair | Kent Hoekman, Research Professor, Desert Research Institute; Amber Broch, Curtis Robbins and Wei Yan, Desert Research Institute; Chuck Coronella, Univ. of Nevada, Reno; Larry Felix, Gas Technology Institute

H3.4 GIANT KING GRASS-- DEDICATED ENERGY CROP FOR BIOENERGY AND BIOFUELS Carl Kukkonen, CEO, VIASPACE Inc.

H3.5 NEW BIOMASS BOILERS: CLEAN, BUT TRICKY AIR PERMIT COMPLIANCE ISSUES

▶ Co-Chair | Brian Petermann, Mgr., - Air Quality Compliance, Sega, Inc.

© SEUEC 2012

28

Wednesday | February 1

Tuesday | January 31

10AM - 12PM

Session Sponsor and Co-Chair

Chris

Zygarlicke

H4. BIOMASS II

H4.1 RECENT DEVELOPMENTS IN BIOMASS POLICY AND PROJECTS IN NEW ENGLAND Dale Raczynski, Principal, Epsilon Associates, Inc.

H4.2 CFD-BASED EVALUATION OF BUBBLING FLUIDIZED BED BOILERS

▶ Co-Chair | Dave Wang, Senior Engineer, Reaction Engineering International; Marc Cremer, Reaction Engineering International: Robert Bursey and Ishaa Jameel, Clyde Bergemann Anthony-Ross

H4.3 THE CARBON NEUTRALITY OF CERTAIN BIOMASS FEEDSTOCK MIXES

Jeff Wilson, Biomass R&D Manager, Southern Company; Tom Kimmerer & Moore Ventures

H4.4 STATE OF BIOMASS: TRENDS AND OPPORTUNITIES IN BIOMASS POWER AND FUELS

▶ Co-Chair | Chris Zygarlicke, Deputy Associate Director for Research, EERC

H4.5 FUEL SUPPLY - THE KEY TO A SUCCESSFUL BIOMASS PROJECT JD Lindeberg, President & CFO, Resource Recycling Systems

H4.6 IS BIOMASS DISTRICT HEATING BETTER FOR THE ATMOSPHERE?

John Hinckley, Senior Consultant, Resource Systems Group, Inc.

1PM - 3PM

H5. BIO & WASTE ENERGY

H5.1 AIR AND GREENHOUSE GAS REGULATORY UPDATE FOR BIOENERGY FACILITIES Cynthia S. Hibbard, Vice President, CDM

H5.2 EPA'S TWILIGHT ZONE: GAS CREATED BY ANAEROBIC DIGESTION CAN BE A "SOLID **WASTE" TRIGGERING NEW INCINERATOR RULES**

▶ Co-Chair I Angela Morrison, Partner, Hopping Green & Sams, P.A.

H5.3 SOLAR BIOMASS HYBRID POWER PLANTS

Brett Wightman, Director of Power Sales, Sopogy and Van Matsushige

H5.4 AQUEOUS SLUDGE GASIFICATION TECHNOLOGIES

Wes Kowalczuk, Chemical Engineer, Southern Research Institute: Tim Hansen

H5.5 AIR QUALITY PERMITTING OF BIO AND WASTE-TO-ENERGY PROJECTS

► Co-Chair | Judy Yorke, President, Yorke Engineering, LLC

H5.6 BIOGAS PURIFICATION SYSTEM FOR DISTRIBUTED POWER GENERATION

Gokhan Alptekin, Vice President, TDA Research

3:30PM - 5:30PM

H6. LANDFILL GAS TO ENERGY

Session Sponsor and Co-Chair

H6.1 PERMITTING CHALLENGES FOR A LANDFILL GAS-TO-ENERGY FACILITY

▶ Co-Chair | Leah Blinn, Manager of Environmental Compliance Services, NGE

H6.2 RENEWABLE ENERGY PROJECTS WITH MSW LANDFILLS - THE LANDFILL OWNER'S SIDE

Robby White, Sr. Scientist, Geosyntec Consultants

SOUTHERN RESEARCH

Tim Hansen H6.3 LANDFILL GAS USE AT THE GODDARD SPACE FLIGHT CENTER

Joseph Martin, Program Manager, NASA Goddard Space Flight Center - Straughan Environmental: Kathleen Moxlev

H6.4 MICROTURBINE POWER GENERATION FROM LANDFILL & OTHER WASTE GASES

▶Co-Chair | Tim Hansen, Program Leader, Southern Research Institute

H6.5 ALTERNATIVES FOR CO-FIRING BIOMETHANE IN POWER PLANTS

Jeffrey Pierce, Senior Vice President, SCS Energy

H7. COFIRING IN POWER PLANTS

H7.1 COFIRING BIOMASS RESIDUES FROM FOREST RESTORATION TREATMENT Nathaniel Anderson, Research Forester, Rocky Mountain Research Station; Greg Jones, USFS; Woodam Chung and Dan Loeffler, University of Montana

H7.2 COAL-FIRED EGU MACT MAY PROVIDE OPPORTUNITIES TO CO-FIRE SEWAGE SLUDGE

Maureen Barrett, Senior Environmental Engineer, Stanley Consultants, Inc.

H7.3 OXYGEN ENHANCED COMBUSTION OF BIOMASS

Lawrence Bool, Sr. Development Professional, Praxair; Jeffrey Mocsari & Bradley Damstedt

H7.4 IS TORREFIED BIOMASS READY FOR UTILITY-SCALE APPLICATIONS?

► Co-Chair | Dick Bratcher, Senior Principal, KEMA; Marcel Cremers

H7.5 CO-FIRING ALTERNATE FUELS AND EMISSIONS CONTROLS TECHNOLOGIES Rvan Zupon, Air Pollution Controls Engineer, Seag Inc.: Christian Johanningmeier, City of Columbia

H7.6 USING WASTE COOKING OIL FOR PROCESS STEAM & POWER

▶ Co-Chair | William Partanen, Business Development - Applications Engineering, Ameristar Biofuels

7:30AM - 9:30AM

Session Sponsor and Co-Chair



Bratcher



William Partanen

10AM - 12PM

H8. BIODIESEL, BIOFUEL & BIOMASS

H8.1 BIODIESEL SUSTAINABILITY

Tom O'Connor, Independent Consultant, National Biodiesel Board

H8.2 EXPLORING BIODIESEL SYNTHESIS BY ISOTHERMAL MICROCALORIMETRY

Andre Levchenko, Applications Scientist, Setaram Inc; Steve Karim, Remi Andre and Pierre Le Parlouer

H8.3 KEEP RUNNING - WHY BULK BIO-DIESEL FILTRATION IS NEEDED TO KEEP TODAY'S MODERN DIESEL ENGINES RUNNING

▶ Co-Chair | Scott Grossbauer, Global Sales Manager, Donaldson Company, Inc.

H8.4 A REAL-WORLD THERMAL BIOMASS CASE STUDY

Eric Epner, Vice President, Fuss & O'Neill, Inc.

H8.5 VARIABLE BLENDING: METHOD FOR UTILIZING BIOGAS IN EXISTING COMBUSTION UNITS

▶ Co-Chair | Stuart Russell, Vice President, Aether DBS

H8.6 EXISTING LANDRACES OF JATROPHA CURCAS L. (PHYSIC NUT) IN NEPAL AND THEIR **BIO-DIESEL CONTENT**

Ram Prasad Sharma, Research Assistant, International Potato Centre (CIP)

Monday | January 30 11. ENERGY SUSTAINABILITY

1PM - 3PM



Ivan Cooper

Track 1 | sustainability

Session Sponsor 11.1 RECYCLED WASTEWATER FOR POWER PLANT COOLING?

and Co-Chair ► Co-Chair | Ivan Cooper, Practice Leader, Golder Associates

11.2 ENVIRONMENTAL COMPARATIVE ANALYSIS OF BEST-IN-CLASS UTILITY COMPANIES Lee Matthews, Senior Manager Environmental Performance, TVA

Associates 11.3 AIR QUALITY OPPORTUNITIES & IMPLICATIONS OF DISTRIBUTED GENERATION **ENROLLMENT PROGRAMS**

Mike Remsberg, Director, Trinity Consultants; Wendy Merz and Patty Centofanti

11.4 THE ARIZONA SOLAR CHALLENGE: COMMUNITY ORGANIZING TO BUILD RESIDENTIAL **SOLAR MARKETS**

Brian Keane, President, SmartPower

metavů 11.5 MANAGING SUSTAINABILITY PERFORMANCE IN THE ELECTRIC UTILITY SECTOR

▶ Co-Chair I Paul Alvarez, Principal and Electric Utility Practice Leader, MetaVu, Inc.

11.6 THE FLIP SIDE - COULD CLIMATE CHANGE IMPACT YOUR POWER PLANT?

Leah Bissonette, Managing Partner, ERM; Andy Churr

14. SUSTAINABILITY - GREEN

14.1 ISO 26000: GUIDANCE ON SOCIAL RESPONSIBILITY FOR A UTILITY

▶ Co-Chair | Colin Isaacs, CEO, Canadian Institute for Business & the Environment; Carole Burnham, Carole Burnham Consulting

14.2 UTILIZING THE BRAIN TO CREATE A CULTURE THAT SUPPORTS SUSTAINABILITY Michelle Brown, Psychologist, Sentis; Elizabeth Prazeres

14.3 THE ORIGINS OF ENTERPRISE SUSTAINABILITY MANAGEMENT

Scott Lockhart, Vice President - EHS and Sustainability Solutions, IHS

14.4 LEVERAGING PSYCHOLOGY TO INTEGRATE SUSTAINABILITY AND SAFETY INITIATIVES Autumn Krauss, Chief Scientist, Sentis

14.5 SUSTAINABLE EMPLOYEE COMMUTING - PICKING SCOPE 3 GHG REDUCTION BATTLES Devin Hodge, Sustainability Program Manager, Argonne National Laboratory **14.6 GREEN DENTISTRY**

▶ Co-Chair | Dr. Bapanaiah Penugonda, NYU; Vikas Patel, Anuja Patel, Anette Cutuano

10AM - 12PM

Session Sponsor and Co-Chair



Colin Isaacs

1PM - 3PM

Paul

Alvarez

3:30PM - 5:30PM 12. SUSTAINABILITY PROJECTS

Session Sponsor I2.1 INNOVATIVE GREEN ROAD TECHNOLOGIES and Co-Chair

Frank Elswick, Western Regional Manager, Midwest Industrial Supply, Inc.

12.2 BUILDING PRACTICES 2020

CR Herro, Vice President of Environmental Affairs, Meritage Homes

12.3 LINKING ENERGY GENERATION WITH WATER CONSUMPTION, ENVIRONMENTAL IMPACT, AND ECONOMIC FACTORS

metavû ►Co-Chair | Dan Ristic, Energy Systems, ANL

12.4 LIFE CYCLE THINKING IN THE ENERGY SECTOR - METHODS, TOOLS & ITS APPLICATION John Heckman, Managing Director, PE International & Five Winds Strategy Consulting; Oliver Schuller

12.5 ELECTRIC UTILITY SECTOR SUPPLEMENT: WHAT GRI REPORTERS NEED TO KNOW ▶Co-Chair | Mark Serwinowski, CEO and Founder, MetaVu, Inc.

12.6 SUSTAINABILITY MANAGEMENT SYSTEMS: PRACTICAL CONSIDERATIONS FOR **DEVELOPMENT AND ASSURANCE**

DeAnn Sarver, Vice President, LRQA Americas Sustainability; Evan Birenbaum

15. WATER SUSTAINABILITY I

15.1 RISK TO ELECTIRICITY GENERATION FROM DROUGHT IN THE WESTERN UNITED STATES

▶ Co-Chair | Christopher Harto, Energy and Environmental Analyst, Argonne National Laboratory; Yuejun Yan, Yonas Demissie, and Vincent Tidwell

15.2 A DECISION SUPPORT SYSTEM FOR INTEGRATED WATER MANAGEMENT

Gwendolyn Woods, Graduate Assistant - Research, The University of Arizona; Doosun Kang, Kevin Lansey, Robert Arnold, The University of Arizona; David Eberle, Jeremy Smith, Stephen Davis, Malcolm Pirnie

15.3 HIGH-TECH AUTOMATIC WATER METER READING

▶ Co-Chair I)Daniel Christodoss, Asset Manager, Southwest Water Company

15.4 ON-SITE GENERATED MIXED-OXIDANT SOLUTION FOR COOLING TOWER TREATMENT Thomas Muilenberg, Sr. Industrial Sales Manager, MIOX Corporation

Mark

Serwinowski

Tuesday | January 31

7:30AM - 9:30AM 13. SUSTAINABILITY REPORTING

enablon^{*}

Chris

Haddock

Session Sponsor I3.1 REAL-TIME FLARE EMISSIONS MONITORING AND REPORTING

and Co-Chair | Richard Hovan, Manager - Environmental Solutions, Rockwell Automation

13.2 SUSTAINABILITY KEY INDICATORS AND BENCHMARKS

Todd Maki, Project Manager - Sustainability, Electric Power Research Institute (EPRI)

13.3 ACHIEVING SUSTAINABILITY IN THE AGE OF CARBON CONSCIOUSNESS

► Co-Chair I Chris Haddock, Product Manager, Enablon

13.4 INNOVATION OF FINANCIAL REPORTS BASED ON THE SUSTAINABILITY

Sun Mei, Student, Waseda University; Nagata Katsuya and Onoda Hiroshi

Rockwell Automation

> Rich Hovan

16. WATER SUSTAINABILITY II

I6.1 CLEAN AIR & CLEAN WATER REQUIREMENTS FOR ELECTRIC GENERATING PLANTS Miranda Yost, Associate, Hunton & Williams

16.2 LEGAL COMPLIANCE STRATEGIES FOR REOPERATION & MODIFICATION OF WATER **STORAGE & CONVEYANCE SYSTEMS**

Joseph Nelson, Member, Van Ness Feldman, P.C.

16.3 WATER SUPPLY SOLUTIONS TO MEET WET FLUE GAS DESULPHURIZATION WATER **DEMANDS AT AMEREN'S COFFEEN POWER STATION**

▶ Co-Chair | Dan Whalen, Assistant Vice President, Hanson Professional Services Inc.; Lee

32

16.4 DEVELOPMENT OF A WATER CONSERVATION TOOL FOR POWER GENERATORS

▶Co-Chair | Tina Petersen, Water Resources Engineer, CDM; Randi Kim

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Dan Whalen



Monday | January 30

7:30AM - 9:30AM I7. WATER & ELECTRIC UTILITIES I

Wednesday | February 1

Session Sponsor and Co-Chair

Kent

7ammit

17.1 SESSION OVERVIEW - WHY SHOULD ELECTRIC UTILITIES CARE ABOUT WATER?

▶ Co-Chair | Kent Zammit, Senior Program Manager, Electric Power Research Institute

17.2 ENVIRONMENTAL REGULATIONS IMPACTING WATERPOWER

Paul Jacobson, EPRI

17.3 WATER QUALITY TRADING TO REDUCE NUTRIENTS

Jessica Fox, Sr. Project Manager, EPRI

17.4 RESULTS OF EPRI'S 316(B) CLOSED-CYCLE COOLING RETROFIT RESEARCH PROGRAM

David Bailey, Sr. Project Manager, Electric Power Research Institute

17.5 EVALUATING TECHNOLOGIES TO ACHIEVE THE GREAT LAKES WATER QUALITY **OBJECTIVE FOR HG IN WASTEWATER**

Patricia Gillenwater, Chemical Engineer, Argonne National laboratory; Cristina Negri, Meltem Uraun Demirtas and Seth Snyder

17.6 UPDATE ON THE PROPOSED SECTION 316(B) RULE.

Averil Edwards, Associate, Winston & Strawn LLP

10AM - 12PM

Session Sponsor and Co-Chair

18. WATER & ELECTRIC UTILITIES II

I8.1 DEVELOPING ADVANCED WATER CONSERVING COOLING OPTIONS FOR EXISTING & **NEW POWER GENERATION PLANTS**

▶ Co-Chair | Kent Zammit, Senior Program Manager, Electric Power Research Institute; Jessica Shi and Sean Bushart



George Offen

18.2 DEVELOPMENT OF A WATER RESEARCH CENTER

Kenneth Cushing, Manager - Environmental Field Services, Southern Research Institute; Mr. Jay Wos, Southern Company; Dr. George Offen, EPRI

18.3 EPA'S EFFLUENT GUIDELINES: IMPACT ON COAL POWER PLANTS AND EPRI

Paul Chu, Senior Project Manager, Electric Power Research Institute

18.4 VERTICAL FLOW WETLANDS AND FGD WW TREATMENT

Bill Garrett, Supervisor, Alabama Power Company, GSC #8; Jon Ponstein

18.5 IMPLICATIONS OF EPA'S PROPOSED CLEAN WATER ACT 316(B) REGULATIONS ON THE **POWER INDUSTRY**

Kurtis Schlicht, Senior Consultant, ERM; Robert Carpenter

J1. ENERGY EFFICIENCY

J1.1 ENERGY EFFICIENCY IMPROVEMENT FROM US UTILITIES IMPLEMENTING DEMAND-SIDE MANAGEMENT PROGRAMS

▶ Co-Chair | Cha-Chi Fan, Mathematical Statistician, US Energy Information Administration

J1.2 INNOVATIONS TO ENGAGE SMALL COMMERCIAL CUSTOMERS IN AGGRESSIVE **ENERGY EFFICIENCY PORTFOLIOS**

Steven Meyers, VP of Strategy, EnerPath

J1.3 ENERGY AND ENVIRONMENTAL HOT SPOTS IN THE LIFE CYCLE OF UTILITY PRODUCTS John Heckman, Managing Director, PE International & Five Winds Strategy Consulting; Pete Girard

J1.4 EVALUATION, MEASUREMENT & VERIFICATION OF ENERGY EFFICIENCY PROGRAMS

▶ Co-Chair | Mark Martinez, Manager - DR Business Strategy & Planning, Southern California Edison; Ryn Hamilton, Ryn Hamilton Consultilna

J1.5 WHAT UTILITY BILLS REVEAL ABOUT A BUILDING

John Avina, President, Abraxas Energy Consulting

J1.6 LEED® THE USE OF SMART COMMUNICATING DEVICES TO GARNER LEED® POINTS

Mark Hauenstein, President, Technical Designs

J2. ENERGY

J2.1 STATEWIDE ADOPTION OF PROFESSIONAL CREDENTIALS FOR RESIDENTIAL RETROFIT **PROGRAMS**

▶ Co-Chair | Tiger Adolf, Director - Western Region, Building Performance Institute, Inc.

J2.2 CERTIFICATION FOR HOME ENERGY UPGRADES

Richard Knaub, Project Manager, NREL; Amy Hollander

J2.3 A MATCHED PAIR OF HOMES FOR RETROFIT TECHNOLOGY DEMONSTRATIONS

▶ Co-Chair | Graham Parker, Senior Staff Engineer, Pacific Northwest National Laboratory; Subrato Chandra

J2.4 PORTFOLIO APPROACH TO ENERGY PERFORMANCE IN A LARGE MULTI-FAMILY **BUILDING STOCK**

David Kuperberg, CEO, FS Energy

J2.5 WHY ASSET RATINGS FAIL

Elton Sherwin, Sr. Managing Director, Ridgewood Capital

J2.6 TRADITIONAL, BEAUTIFUL & SUSTAINABLE: STONE HOUSES OF ASIR, SAUDI ARABIA

Hisham Mortada, Professor of Architecture, Kina Abdul Aziz University

Session Sponsor and Co-Chair

1PM - 3PM



3:30PM - 5:30PM

Session Sponsor and Co-Chair



Tiger Adolf



Graham Parker

J3. SMART GRID

J3.1 MICROGRIDS

▶ Co-Chair | Brian Lenane, Senior Principal, SRA International

J3.2 A SMARTER GRID SUPPORTS COMMUNAL MICROGRIDS

Terry Mohn, Founder, General MicroGrids, Inc.

J3.3 COMPLIANCE, CYBER SECURITY, & SMARTGRID INITIATIVES & IMPLEMENTATION Rahul Chhabra, Security & Compliance Consultant, Burns & McDonnell Engineering: Jerome Farguharson

J3.4 MAXIMIZING CUSTOMER BENEFITS: PERFORMANCE MEASUREMENT & ACTION STEPS

▶ Co-Chair I Paul Alvarez, Principal and Electric Utility Practice Leader, MetaVu, Inc.

J3.5 BRINGING ORDER FROM COMPLEXITY: ENTERPRISE ARCHITECTURE & THE SMART GRID

Gustav Hoyer, Director, Alvarez & Marsal; Rashmi Kumar

Tuesday | January 31

Session Sponsor and Co-Chair

7:30AM - 9:30AM



Paul Alvarez



Room 228A

Tuesday | January 31

10AM - 12PM

J4. ENERGY EFFICIENCY

J4.1 NEXT GEN LARGE AREA LIGHTING: MORE LIGHT, LESS ENERGY Greg Davis, CTO, Lumetric

J4.2 METHODS FOR MINIMIZING ENERGY COST FOR LABORATORY EXHAUST SYSTEMS
►Co-Chair | Ron Petersen, Vice President, CPP, Inc.

J4.3 IF YOU WANT TO MANAGE, YOU NEED TO MEASURE. THE IMPORTANCE OF AIRFLOW MEASUREMENT!

Tom Checksfield, Vice President, General Manager, Tek-Air Systems Inc.

J4.4 WHITE TAGS STREAMLINE STATE ENERGY EFFICIENCY COMPLIANCEAlden Hathaway, SVP Business Development, Sterling Planet

J4.5 DIAGNOSTICS & TREATMENT INCLUDING STEP BY STEP INSTRUCTION TO MAKE YOUR SYSTEM FIT & SUSTAINABLE

▶Co-Chair | Hemant Mehta, President, WM Group Engineers, P.C.

J4.6 LEVERAGING INDUSTRIAL ENERGY OPTIMIZATION FOR HIGHER PROFITABILITY
Phil Kaufman, Business Manager - Power & Energy Management, Rockwell Automation

1PM - 3PM

J5. ENERGY EFFICIENCY & MANAGEMENT

J5.1 FINANCING OF UTILITY ENERGY EFFICIENCY LOANS

Austin Whitman, Vice President, M.J. Bradley & Associates

J5.2 A METHOD TO IMPROVE POWER PLANT EFFICIENCY AND POWER

Zhen Fan, R&D Project Manager, Foster Wheeler R&D; Andy Seltzer and Horst Hack

J5.3 EFFICIENT FOSSIL FUEL PROCUREMENT IN JAPANESE ELECTRIC UTILITY INDUSTRY

Misao Endo, Visitting Researcher, Central Research Institute of Electric Power Industry(CRIEPI)

J5.4 THE GREEN ZONE: CHANGING LAND USE REGULATIONS

Michael Robinson, Partner, Perkins Coie LLP

J5.5 HIGH INTENSITY LIGHTING WITH NEXT GENERATION LIGHT SOURCES

► Co-Chair | Ahmed Shuja, CTO, BritePointe Inc.

J5.6 ROADMAP FOR IMPLEMENTATION OF THE 'NEXT GENERATION ENERGY MANAGEMENT INFORMATION SOLUTION'

▶ Co-Chair | Sloane Whiteley, Senior Business Consultant / Analyst, AVEVA

3:30PM - 5:30PM J6. ENERGY CONSERVATION & STORAGE

J6.1 POTENTIAL ENERGY SAVINGS OF A DC POWERED MICROGRID OFFICE PROJECT Melanie Johnson, Research EE, U.S. Army Corps of Engineers; William J. Stein

J6.2 OPPORTUNITIES IN HIGH POWER ENERGY STORAGE

Robert Misback, Director - Energy Storage, Altairnano Inc.

J6.3 NEWS FLASH - CUSTOMERS ARE VOTERS

▶ Co-Chair | Lawrence Silverman, Chairman and Chief Scientist, GridPlex Networks

J6.4 CAN WE DEVELOP ENERGY STORAGE THAT IS BOTH STABLE AND COST-EFFECTIVE?

► Co-Chair | Rusty Speidel, VP - Marketing, Encell Technology

J6.5 GREEN IT FOR DATA CENTERS: EFFICIENCIES THROUGH MODELING, HARDWARE SELECTION AND VIRTUALIZATION

Jeff Riegle, Energy Program Manager, AMEC

J6.6 ENERGY CONSERVATION HYBRID STREET SWEEPER

Toshihiko Furukawa, Senior Manager, United Chemi-Con; Abas Goodarzi, US Hybrid

Does Ameristar Biofuels make your coal burning power plant run cleaner?



You bet your ash it does!

At Ameristar Biofuels, we make you leaner, cleaner and greener.

Ameristar Biofuels is one of the nation's largest producers of biofuels made from renewable liquid biomass. Our products offer a number of advantages:

- Makes older plants run cleaner and brings them back into environmental compliance
- Qualifies for renewable energy credits
- Our biofuels have minimal sulphur and no mercury, particulates or other harmful emissions
- Biofuel is 100% clean-burning and reduces your carbon footprint
- Our biofuels reduce the cost of hazardous ash disposal



Visit Ameristar Biofuels at EUEC 2012 Booth 323

Monday | January 30

1PM - 3PM

K1. SMALL SCALE RENEWABLE & ELECTRIC UTILITIES

K1.1 CHALLENGES WITH COMMUNITY RENEWABLE ENERGY PROJECT DEPLOYMENT Elaine Sison-Lebrilla, Renewable Energy Program Manager, Sacramento Municipal Utilities District; Valentino Tiangco, Marco Lemes and Kathleen Ave

K1.2 UTILITY OWNERSHIP VS. THIRD PARTY FINANCING OF DG ASSETS

▶ Co-Chair I Rvan Hurley, Partner, Rose Law Group

K1.3 NUCLEAR ASSISTED BIO-FUEL PRODUCTION VIA HIGH TEMP. STEAM ELECTROLYSIS ▶ Co-Chair | Grant Hawkes, Research Engineer, Idaho National Laboratory; Michael McKellar, James O'Brien

K1.4 THE EVOLVING ROLE OF DISTRIBUTED GENERATION ON THE U.S. POWER SECTOR Elias Hinckley, Partner, Kilpatrick Townsend

3:30PM - 5:30PM K2. DISTRIBUTED GENERATION

K2.1 DISTRIBUTED GENERATION

Track RENEWABLE ENERGY

▶ Co-Chair | Dennis Arfmann, Co-Chair Global Clean Energy Group, Hogan Lovells USA

K2.2 RENEWABLES AT ALTITUDE -- ROCKY MOUNTAIN HIGHS AND LOWS Karl Kumli, Vice-President & Shareholder, Dietze and Davis, P.C.: Mark Detsky

K2.3 SMALL & MID SIZE COMMERCIAL RENEWABLE & DISTRIBUTED GENERATION PROJECTS IN THE MID-ATLANTIC REGION

▶ Co-Chair | Dan Skowronski, Attorney, Saul Ewing LLP

K2.4 TRANSFORMING DISTRIBUTED GENERATION

Asim Hussain, Director - Product Marketing, Bloom Energy

K4. RENEWABLE PROJECT DEVELOPMENT

K4.1 TRANSACTION STRUCTURES FOR RENEWABLE ENERGY

▶ Co-Chair | James Duffy, Partner, Nixon Peabody LLP

K4.2 A CASE FOR INCORPORATION VISUAL RESOURCES CONSIDERATIONS INTO EARLY **PROJECT SITING AND DESIGN**

Louise Kling, Senior Landscape Ecologist / Analyst, URS; Dautis Pearson and Dave Lawrence

K4.3 BEST PRACTICES FOR ESTABLISHMENT OF A JOINT VENTURE Michael Manuel, Principal, Goldberg Kohn Ltd.

K4.4 RENEWABLE ENERGY M&A: TRENDS AND RATIONALES

Thomas Paschall, Senior Associate, Milbank Tweed Hadley & McCloy LLP

K4.5 PROJECTING FUTURE REC PRICING

Melissa Ritter, Director Environmental Markets & Policy, Pace Global Energy Services

K4.6 ENVIRONMENTAL ASPECTS OF RENEWABLE ENERGY

▶ Co-Chair | Adam Shor, Project Engineer / Scientist, Electric Power Research Institute; Tina Taylor

K5. IP & NEW TECHNOLOGY

K5.1 PROTECTING YOUR INTELLECTUAL ASSETS IN THE RENEWABLE ENERGY MARKETS

▶Co-Chair | Bryan Treglia, Registered Patent Attorney, Quarles & Brady LLP

K5.2 WHAT YOU NEED TO KNOW NOW ABOUT THE AMERICA INVENTS ACT OF 2011 Peter Jackman, Director, Sterne, Kessler, Goldstein & Fox P.L.L.C.

K5.3 CLEAN ENERGY PLANNING

▶Co-Chair | Sam Scupham, Renewables, Black & Veatch Corporation

K5.4 CLEAN FUEL FOR MULTI-MEGAWATT ELECTRICAL POWER GENERATION & HEATING Howard Phillips, Individual Inventor & Professor Emeritus (retired), DBA Phillips Company

K5.5 INTELLECTUAL PROPERTY OPTIONS FOR SOFTWARE-BASED TECHNOLOGIES

Tim Smith, Consultant/Patent Agent, King & Spalding LLP

K5.6 HOW PATENT REFORM AFFECTS THE TECHNOLOGIES IN THE EMISSION CONTROL & **RENEWABLE SPACE**

Tim Smith, Consultant/Patent Agent, King & Spalding LLP

10AM - 12PM

1PM - 3PM

Session Sponsor and Co-Chair



Sam Scupham

Tuesday | January 31

7:30AM - 9:30AM K3. RENEWABLE DEVELOPMENT ANALYSIS

Session Sponsor and Co-Chair



Peter Flynn K3.1 IMPROVING LANDFILL FINANCIAL PERFORMANCE WITH THE ENERGY PARK CONCEPT

Kevin Brown, Principal, Golder Associates Inc.; George Deardorff

K3.2 SELECTING RENEWABLE ENERGY PROCESSES

▶ Co-Chair | Peter Flynn, Professor, University of Alberta; Erin Searcy, Idaho National Laboratory

K3.3 FIVE KEY DRIVERS YOU NEED TO KNOW TO UNDERSTAND THE RENEWABLE ENERGY **MARKETPLACE**

George Kehler, Director - Sustainability Programs, Fellon-McCord

K3.4 RENEWABLE ENERGY DEVELOPMENT FOR A MILITARY TRAINING COMPLEX IN **AFGHANISTAN**

▶ Co-Chair | William Stein, Research Mechanical Engineer, U.S. Army ERDC-CERL; Benjamin Barnes

K3.5 A REVOLUTIONARY GREEN NUCLEAR POWER SOURCE BASED ON LOW ENERGY **NUCLEAR REACTIONS (LENRS) IN GAS LOADED NANOPARTICLES**

George H. Miley, Professor, Univ of IL; Xiaoling Yang

K6. SOLAR, PV

K6.1 CASE STUDIES ON IMPACTS OF HIGH PV PENETRATIONS ON DISTRIBUTION SYSTEMS

▶ Co-Chair I Ronald Davis, Director T&D, BEW Engineering; Emma Stewart

K6.2 NON-RESIDENTIAL SOLAR ECONOMICS: THE CHALLENGE OF DEMAND CHARGES Peter Hamilton, Director of Energy Services, California Center for Sustainable Energy

K6.3 SOLAR "INTELLIGENT DESIGN" OF THE FLAT COMMERCIAL ROOFTOP Edward O'Brien, Partner, SolarDock

K6.4 THIRD GENERATION SOLAR TECHNOLOGY: TRANSFORMING BUILDINGS INTO POWER **PLANTS WITH DSC**

▶Co-Chair | Marc Thomas, CEO, Dyesol Inc.

K6.5 NEW BREAKTHROUGH IN SOLAR ROOFTOP SAFETY

Chris Reich, Dir. Business Development, AMtec Solar

K6.6 PV AND CPV PERFORMANCE IN EXTREME ENVIRONMENTS

Abdulla Al Shater, Project Leader Forensic Failure Analysis Division; Professor Samir Fakhro, Graeme Coomber, and Kevin C Obrien

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Ronald Davis



38

Monday | January 30

L1. ENERGY MANAGEMENT

1PM - 3PM

L1.1 A SYSTEMATIC APPROACH TO DELIVER ENERGY SAVINGS

Cynthia Marks, Project Engineer, AMEC E&I, Inc.

L1.2 SLAG CONTROL FOR OPPORTUNITY COAL

Domingo Tubio, Applications Engineer, GE Water; Herb Quinones

L1.3 COMMON EHS COMPLIANCE AUDIT FINDINGS IN THE POWER GENERATION INDUSTRY

►Co-Chair | Mark Wenclawiak, Project Manager, O'Brien & Gere

L1.4 ENVIRONMENTAL ASPECTS OF DECOMMISSIONING A COAL POWER PLANT

►Co-Chair | Lisa Ricker, Power Program Manager, ECT, Inc.

L1.5 AIR POLLUTION CONTROL MANAGEMENT

Greg Coleman, Director - Global Air Practice, Geosyntec

Together, we can ensure a cleaner environment.

Parker Energy Products Division's Multitube® product line has been installed in gas stack CEM systems globally for over 25 years, bringing outstanding performance value to the utilities industry. Parker engineers heated lines for your gas stack sampling systems with a temperature maintenance range of up to 400°F (204°C). Each element within the umbilical is helically cabled, allowing for complete heat control through its length, thus providing precise feedback to the operator and ensuring system accuracy.



Parker Energy Products Division Multitube Business Unit +1 330 296 2871 www.parkerepd.com

L2. COMPLIANCE TECHNOLOGIES & STRATEGIES

3:30PM - 5:00PM

L2.1 DESIGN AND CONSTRUCTION OF IMPROVEMENTS TO ACCOMMODATE CHANGES IN THE FLOOD STAGE AT THE WASTE TREATMENT PONDS OF OG&E'S MUSKOGEE STATION

▶Co-Chair | Matt Bleything, Senior Civil Engineer, Burns & McDonnell

L2.2 THE CHANGING PARADIGM OF "SUSTAINABLE BUSINESS"

Graeme Dykes, Sales Manager, Enviance

L2.3 COACHING & ACCOUNTABILITY IN DRIVING ENERGY PLANT SAFETY & PERFORMANCE

▶Co-Chair | Kevin Smith, Senior Associate, Tosan, Inc.

L2.4 PROTECTING INDUSTRIAL CONTROL SYSTEMS - A LAYERED APPROACH

Mark Trump, Application Engineer, FoxGuard Solutions

L2.5 FIVE TIPS TO PLAN FOR AND PREVENT A BLACK SWAN

Angela Wong, Chief Process Safety Engineer, IHS

Tuesday | January 31 | L3.HABITAT CONSERVATION PLAN IMPLEMENTATION 7:30AM-9:30AM

L3.1 PG&E'S OPERATIONS & MAINTENANCE HABITAT CONSERVATION PLAN

►Co-Chair | William Coleman, Supervisor, Pacific Gas & Electric Company; Mark Dedon, Kayla Paschal, Julie Cash, Loretta Zarza, and Elizabeth Young

L3.2 WHOOPING CRANE POWER LINE HCP

James Jenniges, Environmental Specialist, Nebraska Public Power District; Richard Loughery

L3.3 HABITAT CONSERVATION PROGRAMS AT GEORGIA POWER

▶ Co-Chair | Joe Slaughter, Fisheries Biologist, Georgia Power Company; William Candler, Anthony Dodd

L3.4 HCP: AN ENVIRONMENTAL COST OF RENEWABLE WATER AND POWER SUPPLIES
Ruth Valencia, Principal Environmental Scientist, SRP; Charles Paradzick, Ray Hedrick

L3.5 THE FUTURE OF HABITAT CONSERVATION PLANNING

Craig Denisoff, Craig Denisoff Consultants



Session Sponsor

and Co-Chair





Wednesday | February 1

Tuesday | January 31

10AM - 12PM

Session Sponsor and Co-Chair



Howard Benisvy

BLACK & VEATCH

BLACK & VEA Tim Hillman L4. POWER PLANT & BOILER OPTIMIZATION

L4.1 FAST RESPONSE NOX MONITORING FOR BETTER SCR OPTIMIZATION DURING TRANSIENT CONDITIONS

Ken Greaves, VP Sales & Marketing, CEMTEK Instruments Inc

L4.2 UPGRADING YOUR PLANT WHILE UPDATING YOUR AQC

▶Co-Chair | Tim Hillman, Project Manager, Black & Veatch Corporation

L4.3 OPTIMIZING CATALYST PERFORMANCE AIDS IN LOWERING OPERATIONAL AND MANAGEMENT COSTS

► Co-Chair | Volker Rummenhohl, VP Catalyst Mgnt. Technologies, Fuel Tech & Santee Cooper Cross Station; Howard Benisvy, Kent Shultz and Michael Davis

L4.4 PORTFOLIO MANAGEMENT OF GENERATION ASSETS

Gill Eapen, CEO, Decision Options, LLC

L4.5 LOWERING COAL-FIRED NOX THROUGH SMART DETERMINISTIC COMBUSTION OPTIMIZATION

Bruce Kelly, Manager - Plant Operations Services, Sega Inc.; Kenneth Luebbert, KCPL; Donald Hatch, Siemens

L4.6 ZONAL COMBUSTION MONITORING FOR IMPROVED COMBUSTION PERFORMANCE AT LG&E, MILL CREEK UNIT 3

Neil Widmer, Product Manager, GE Energy; Santosh Nareddy, Antonio Marquez, David Moyeda, GE; Daniel Kremer, Nathaniel Dorwart; LG&E

1PM - 3PM

L5. EHS & EMIS

L5.1 FIRST RESPONDER TRAINING

Henry Ryng, President, CommandPlan LLC; Dan Suhr

L5.2 TRANSITIONING TO GHS

▶ Co-Chair | Duane Burkett, Chief Operating Officer, Safetec

L5.3 EHS - MAKING IT MANAGEABLE AND TRANSPARENT

Milan Dayalal, Vice President, Dakota Software Corporation

L5.4 IMPROVING CORPORATE PRODUCTIVITY THROUGH ENTERPRISE DATA REPORTING

Ray Fain, Director of Engineering, QA Support, LP

L5.5 HOW TO DEPLOY & MANAGE YOUR AUTOMATED EXTERNAL DEFIBRILLATOR PROGRAM

▶ Co-Chair | Briann Leonard, CEO, Code Red Services

L5.6 EPA'S NON-HAZARDOUS SECONDARY MATERIALS

Carroll McGuffey, Associate, Troutman Sanders LLP

3:30PM - 5:30PM L6. EHS & RISK MANAGEMENT

L6.1 RISK MANAGEMENT PROGRAMS CREATE SUSTAINABLE SAFETY AND SECURITY OPERATIONS AT POWER PLANTS

▶Co-Chair | Jeff Simmerman, Lieutenant Commander, ERM

L6.2 DIGITAL TOOLS FOR MANAGING ENVIRONMENTAL, HEALTH & SAFETY RESPONSIBILITIESBrad Condley, Environmental Compliance Supervisor, East Kentucky Power Cooperative;
Jennifer Cave, Greenebaum Doll & McDonald PLLC.; Milan Dayalal, Dakota Software
Corporation

L6.3 RISK PROFILING FOR IMPROVED ENVIRONMENTAL SAFETY

Eric Morris, Product Manager, IHS

L6.4 ISSUES TO CONSIDER IN YOUR 2012 INSURANCE RENEWAL

Vivek Chopra, Partner, Perkins Coie LLP

L6.5 CLOUD-BASED COMPLIANCE: THE NEW AGE OF BUSINESS PERFORMANCE

► Co-Chair | Graeme Dykes, Sales Manager, Enviance

L7. ASH/CCP

L7.1 COAL ASH MANAGEMENT - THE CHANGING LEGAL LANDSCAPE

►Co-Chair | Jeffrey Martin, Partner, Hunton & Williams LLP

L7.2 WEATHERING THE STORM - CHANGES IN CCP MANAGEMENT

Mark Rokoff, National Business Leader for CCP Mgmt Services, URS Corporation

L7.3 HUMAN HEALTH RISK ASSESSMENT OF COAL COMBUSTION PRODUCTS: TOXICOLOGICAL UPDATES

Ari Lewis, Sr. Toxiologist, Gradient

L7.4 FACTORS IN THE PRODUCTION OF COMMERCIAL GYPSUM

Michael Meadows, Air Quality Senior Engineer, Sega, Inc

L7.5 ENVIRONMENT FRIENDLY DRY ASH DISPOSAL

▶Co-Chair | Ferenc Horvath, Vice President, GEA EGI Co. Ltd; Geza Walter

7:30AM – 9:30AM Session Sponsor and Co-Chair

GEA

GEA EGI Contracting/Engineering Co. Ltd.

Ferenc Horvath

10AM - 12PM

L8. OPERATIONS & MANAGEMENT

ETC

L8.1 ENVIRONMENTAL COMPLIANCE, FUEL SWITCHING AND ELECTRICITY MARKETS

► Co-Chair | Alex Hofmann, Sr. Energy & Environmental Services Engineer, American Public Power Association

L8.2 BENEFIT OF RFID TECHNOLOGY IN THE UTILITY/ENERGY INDUSTRY

Michael Berryman, Nuclear Applications Consultant, Diversified Diamond-Accu-traq; Mary Dillon

L8.3 CONSIDERATIONS FOR EMISSIONS CONTROL OF CYCLING DUTY COAL-FIRED POWER PLANTS

Donald Koza, Senior Technical Support Specialist, Bechtel Power Corp; Ping Wan, Desmond Chan, Salman Sheikh and Peter Litterini

L8.4 SUCCESSFUL EMISSIONS CONTROL STRATEGIES OF A THERMAL POWER PLANT

Abdul Rehman Khan, Chairman Environmental Technology, Kuwait University; Dr. Salem Al-Haijraf, Kuwait Institue for Scientific Research

L8.5 FUEL SELECTION FOR POLLUTION ABATEMENT STRATEGY

► Co-Chair | Abdul Rehman Khan, Chairman Environmental Technology and Management, Kuwait University; Dr. Salem Al-Hajraf Kuwait Institue for Scientific Research

Marketing Opportunities for EUEC 2013

Advertise at Networking Events

Company logo displayed on 2000 meal tickets

- Company Logo on Meal Tickets used by all registered delegates
- Buffet Style meals, hors d'oeuvres, cash bar served in exhibit hall.
- Marketing Advertisement in program book, website, banner & slideshow in exhibit hall

Event	Time	Date	
Networking Receptions	Opening Reception 5 to 7 pm	Monday 1/28/13	Available
(\$8,000)	Closing Reception 5 to 7 pm	Tuesday 1/29/13	Available
Networking Lunches	12 to 1 pm	Monday 1/28/13	Available
(\$7,000)	12 to 1 pm	Tuesday 1/29/13	Available
	3 to 3:30 pm	Monday 1/28/13	Available
Networking	9:30 to 10 am	Tuesday 1/29/13	Available
Breaks (\$3,000)	3 to 3:30 pm	Tuesday 1/29/13	Available
(,,,,,,,,,	9:30 to 10 am	Wednesday 1/30/13	Available

Sponsors Breakfast & Coffee Tickets (\$3,000)

Redeemable at Hyatt and Sheraton





Monday 1/28/13 Available Tuesday 1/29/13 Available Wednesday 1/30/13 Available

One Sponsorship Available for EUEC 2012

Contact EUEC by Feb 3, 2012

Your company logo and advertisement included on the EUEC flash-drive containing all 600+ PowerPoint presentations, and audio mailed to all 2,000+full conference attendees.

EUEC 2012 Proceedings Flash Drive (\$10,000)



EUEC 2013 Opportunities

Session Sponsorship & Logo Ad (\$500)

Company Logo Marketing in session, program, & website Session sponsors are given right of first refusal to co-chair, moderate and speak at session.

Your Company Logo Session Chair

Full Page Full Color Ad in Program Book (\$1,000)

Your company advertisement in the EUEC Program Guide distributed to 2,000 delegates.

Delegate Lanyards, Tote Bags & Hotel Keys (\$8,500)

(Two Sponsorships)

Your company logo printed on lanyards or tote bags distributed to 2,000+ attendees.

Brochure Distribution at Registration (\$500)

Distribute your company brochures or flyers at the registration area for the duration of the event.

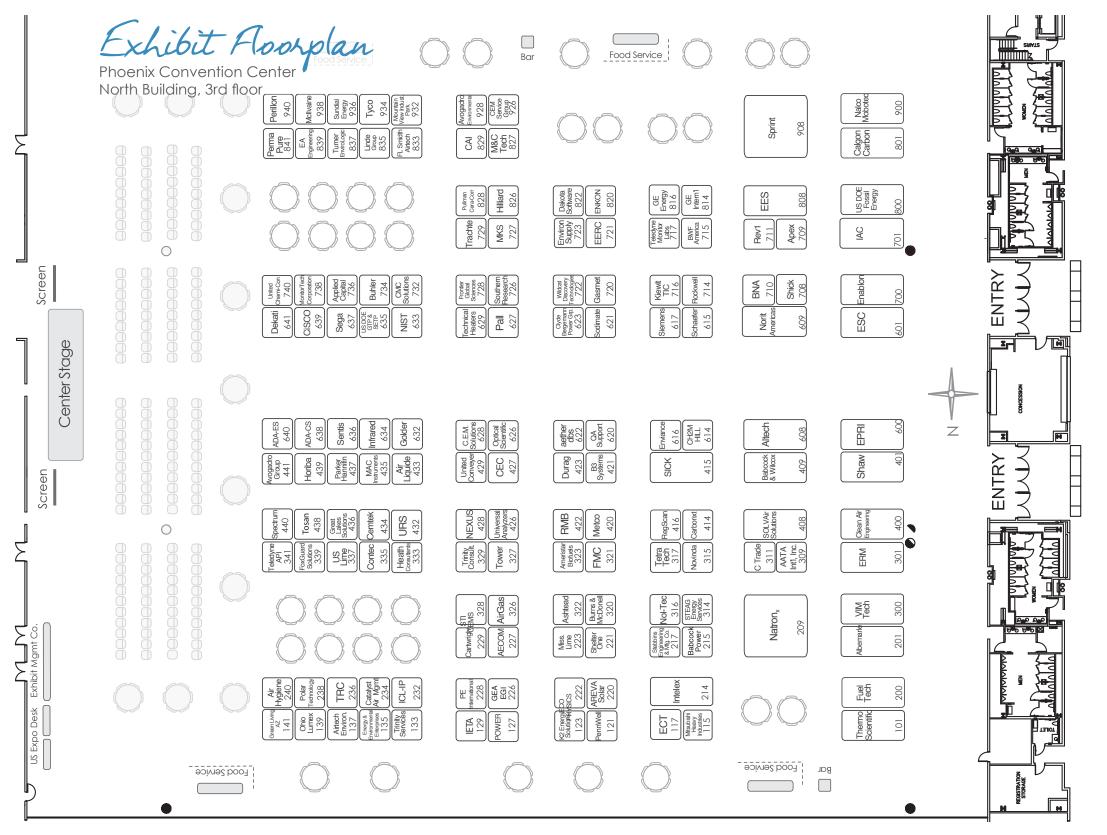
Golf Tournament Sponsorships (\$500)

Sponsor the Breakfast \$1,000. Luncheon, \$2,000. Sponsor prizes awarded at the EUEC Golf Tournament luncheon on Sunday, January 27, 2013.

Contact EUEC:

info@euec.com or call 520-615-3535





Pre-Conference Workshops & Golf Sunday, January 29th

Workshop 1

Permitting & Compliance

Eric Hiser, Jorden, Bischoff & Hiser

This seminar will provide participants with critical information on new developments in clean air regulation, including recent developments in NAAQS. new source review, NESHAP regulation and GHG reporting. The seminar will also address current EPA enforcement priorities, planning and preparing for an inspection, and using the permit process to minimize vour enforcement exposure.

Workshop 2

Challenges for Compliance With Short-term PM2.5. NO2. and SO2 **Ambient Standards**

Robert Iwanchuk, CCM (AECOM) Robert Paine, CCM, QEP (AECOM)

This workshop will provide an overview of PM2.5, NO2, and SO2 NAAQS (and PSD increment, as appropriate) implementation and dispersion modeling procedures. It will also review the current status of litigation filed against USEPA to challenge the new 1-hour NAAQS for NO2 and SO2.

Workshop 3

Emerging Air Quality, Greenhouse Gas and Energy Requirements

Rich Pandullo, Trinity Consultants Allan F. Bedwell, CantorCO2e

Power generators are facing a tsunami of emerging new regulations that will affect their ability to operate cost-effectively. These include Federal Clean Air Act regulations - such as the GHG Tailoring Rule, Boiler MACT, and Clean Air Transport Rule – that will impose new emission limitations and operational restrictions on combustion sources.

Workshop 4

GHG Inventory Management

Victoria Evans, ERM

This workshop will focus on practical guidance for developing GHG inventory management plans, inventories and reductions in the context of emerging regulatory and voluntary programs. The course is structured toward developing an entity-wide GHG inventory. This workshop addresses organizational boundaries, source identification, quantification of emissions, base year recalculation, inventory quality management, and preparation for third-party verification. The exercises will allow participants to practice and discuss techniques associated with GHG inventories.



The Legacy Golf Resort 32nd St., Phoenix, AZ Sunday January 29, 2012

7:30 am Breakfast 8:30 am shotgun start 1:00 pm Awards Luncheon



Cost: \$140 with clubs \$100 without clubs

Includes:

Green fees, cart, range balls, bag handling, gratuities & commissions Breakfast & Awards Lunch in Pavilion.

Check Option for Golf Tournament when you register online or

> Contact: info@euec.com Ph: 520-615-3535 www.euec.com

Where do we go next!

You Decide

Reply to the EUEC 2012 Survey to give us your preference



Conference Hotels | Hyatt and Sheraton located one block from Convention Center



HYATT REGENCY 122 N Second St. Phoenix, AZ 85004 Ph: (602) 252-1234 EUEC RATE: \$225



SHERATON PHOENIX 340 N Third St. Phoenix, AZ 85004 Ph: (602) 262-2500 EUEC RATE: \$235



RADISSON PHOFNIX 3600 N Second Ave. Phoenix, AZ 85013 Ph: (602) 604-4900 EUEC RATE: \$99

Exhibiting Companies

_	xhibiting C	10	mpanies
309	AATA International. Inc.	129	IETA
638	ADA Carbon Solutions	809	Industrial Accessories Company
640	ADA Environmental Solutions	634	Infrared Industries
227	AECOM, Inc.	214	Intelex Technologies
622	aether dbs	716	Kiewit
240	Air Hygiene	123	K2 Energy Solutions, Inc.
433 326	Air Liquide America Spec. Gases	835 827	Linde Engineering M&C Tech Group North
201	Airgas Albemarle Corporati on	435	MAC Instruments
608	Altech Environment USA	137	
220	AMEC Earth & Environmental	420	McIlvaine Company Metco Environmental
709	APEX Instruments, Inc.	223	Mississinni Lime Company
322	Ashtead Technology Inc.	922	Mitsubishi Heavy Industries » One
736	Aura Scientific	727	MKS Instruments » One
928	Avogadro Environmental Corp.	738	MonitorTech Corporation » Fully
441	Avogadro Group, LLC	900	Nalco Mobotec USA » 6' c
421	B3 Systems, Inc.	209	Natron _x Technologies LLC » Mar
409	Babcock & Wilcox	428	Nexus Solutions, Inc. » 9 Ne
215	Babcock Power	633	NIST » Reso
710	BNA	316	Nol-Tec Systems, Inc. North American Inc. >> 50%
734	Buhler Technologies LLC	609	NOTIL ATTIETICAS ITIC.
320 715	Burns & McDonnell Engineering Co. BWF America	139 626	Offic Latrick Corriparty
701	C Trade	627	Optical Scientific, Inc. Pall Corporation
628	C.E.M. Solutions	437	Parker Hannifin Corporation
801	Calgon Carbon Corporation	228	PE Int'l & Five Winds Strategic Consulting
829	California Analytical Instruments	311	Perillon Software
414	Carbonxt, Inc.	841	Perma Pure
229	Cartwright & Associates	238	Polar Technology LLC
234	Catalyst Air Management, Inc.	127	POWER Magazine
434	CEMTEK Environmental, Inc.	620	QA Support, LP
614	CH2M HILL	416	RegScan, Inc.
639	CiSCO - Custom Instr. Services	711	Rev1
615	Citation Technologies, Inc.	422	RMB Consulting & Research, Inc.
427	Civil & Environmental Consultants	714	Rockwell Software
400	Clean Air Eng. & Instrument Rental	828	Schaefer, Inc.
732 335	CMC Solutions	637 636	Sega, Inc. Sentis
822	Contec Systems Dakota Software Corporation	401	Shaw Group, Inc.
641	Dekati	221	Shelter One, Inc.
423	Durag	708	Shick USA
222	ECO PHYSICS, INC.	415	SICK Maihak, Inc.
721	EERC - Energy & Env. Research Ctr.	109	Siemens
940	Emission Technologies, Inc.	621	Sodimate, Inc.
700	Enablon North America Corp	408	SOLVAir Solutions
135	Energy & Environmental Enterprises	726	Southern Research Institute
820	ENKON Information Systems Inc.	440	Spectrum Systems Inc.
616	Enviance, Inc.	314	STEAG Energy Services LLC
117	Environmental Consulting & Tech.	217	Stebbins Engineering & Mfg. Co.
808	Environmental Energy Services	328	STI CEMS
723	Environmental Supply Co., Inc.	936	Sundial Energy
601 600	Environmental Systems Corp. (ESC) EPRI	629 341	Technical Heaters, Inc. Teledyne API
301	ERM	317	Tetra Tech Inc.
321	FMC Corp. PerNoxide	101	Thermo Scientific
339	FoxGuard Solutions	438	Tosan
728	Frontier Global Sciences	327	Tower Systems, Inc.
200	Fuel Tech	729	Trachte, Inc.
720	Gasmet Technologies, Inc.	236	TRC
623	GE International, Inc.	329	Trinity Consultants
226	GEA EGI Co. Ltd.	133	Trinity Services
632	Golder Associates. Inc.	837	Turner EnviroLogic
436	Great Lakes Solutions	934	Tyco Environmental Systems
141	Green Living AZ Magazine	740	United Chemi-Con
333	Heath Consultants	429	United Conveyor Corporation
826	Hilliard Corporation	337	United States Lime & Minerals

800 US DOE Fossil Energy/Clean Coal

Wildcat Discovery Technologies

US DOE Solar Energy

Exhibit Package Includes

One Free Registration
One speaking opportunity
Fully Furnished 10'x10' booth
6' draped table with 2 chairs
Marketing logo, website link
9 Networking events in ExhibitHall
Resource book with attendee list
50% discount at \$695 for exhibitors
iPhone App to network with EUEC

Technologies Program Vensoft VIM Technologies

US DOE Geothermal Tech. Program

635

delegates

Contact EUEC

info@euec.com 520-615-3535 www.euec.com





15th Annual | Jan 28-Jan 30 | Phoenix Convention Center 100 N. Third St., Phoenix, AZ 85004

Exhibit Reservation Form 2013

FAX TO: 1-602-296-0199

Registration Questions? View our website at www.euec.com or Contact EUEC at 1-520-615-3535 or info@euec.com,

Level of Participation:		Standard Packag	ge:
Gold (20'x20' Booth) Silver Front Row (20'x10' Booth) Bronze Front (10'x10' Corner) Premium Exhibitor (10'x10' Corner) Standard Exhibitor (10'x10' Booth)	\$25,000 \$10,000 \$5,000 \$3,500 \$3,000	One 10'x10' booth with One 6' draped table wi Marketing of your comp Networking functions in Resource book with att Flash drive memory stick	th two chairs cany logo, website link and contact info Exhibit area
Exhibit Booth Selection:	□ Sa	me location as 2012	1st 2nd 3rd
Please select your preferred choice of B	ooth # from the	exhibit booth layout.	
Exhibitors: Please list the names of company employement Name 1st Registrant (Free)	oyees to attend		\$595 (\$1395 regular). nail
2nd Registrant (\$595)			
Billing Information:			
Exhibit Company Name:			
Exhibit Company Name: Contact Name:			
Contact Name:			
Contact Name:			Zip:
Contact Name:Address:		State:	

Show Rules. Application implies that exhibitor will abide by Conference show rules. Please copy this contract for your files. Exhibitor hereby assumes entire responsibility and hereby agrees to protect, defend, indemnify and save the Phoenix Convention Center, its owners, its operator, EUEC, and each of their respective parents, subsidiaries, affliciates, employees, officiers, directors, and agents harmless against all claims, losses or damages to persons or property, governmental charges or fines and attorney's fees arising out of or caused by its installation, removal, maintenance, occupancy or use of the exhibition premises or a part thereof, excluding any such liability caused by the sole gross negligence of the Convention Center and its employees and agents. Exhibitor shall obtain and keep in force during the term of the installation and use of the exhibit premises, policies of Comprehensive General Liability insurance and Contractual Liability Insurance, insuring and specifically referring to the Contractual liability is present in a mount not less than \$1,000,000 Combined Single Limit for personal injury and property damage. The group agrees to provide a Certificate of Insurance evidencing the coverage described above. Cancellation Policy: 50% refund is available until October 1, 2012.

CONTACT EUEC: P. O. Box 66076, Tucson, AZ 85728 | info@euec.com | p.520-615-3535 | f.602-296-0199

426 Universal Analyzers

URS Corporation

439 Horiba Instruments, Inc.

ICL Industrial Products