

16th Annual | Jan 28 - Jan 30 **Phoenix Convention Center** 100 N. Third St., Phoenix, AZ 85004

Gold Exhibitors





SHOW HOURS

Mon. 11 am to 7 pm 9 am to 7 pm Tues. 9 am to 12 pm Wed. 12 pm to 4 pm Breakdown

NETWORKING RECEPTIONS

9:30 am to 10 am **AM Breaks** Lunches 12 pm to 1 pm 3 pm to 3:30 pm **PM Breaks Receptions** 5:00 pm to 7:00 pm

Silver Exhibitor











































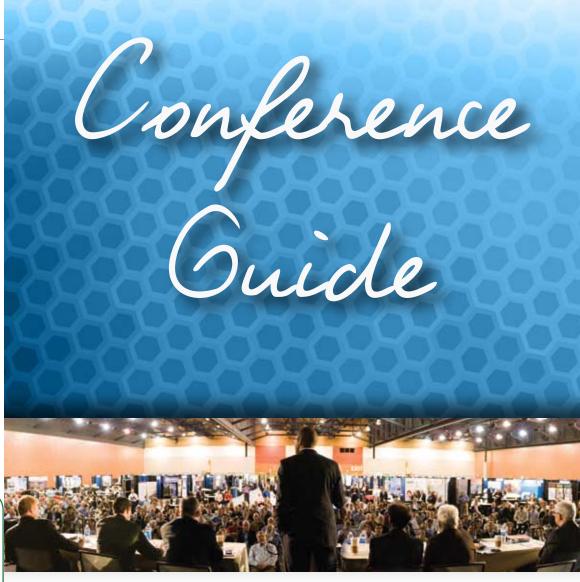


Phoenix Convention Center, 100 N. Third St., Phoenix, AZ 85004





Jan 28 - Jan 30 Phoenix Convention Center,











Mitchell Baer

Bryan Hannegan

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Track H: Biofuels & Biomass

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What is EVEC?

EUEC2013: 16th 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 10 TRACK PROGRAM

REGISTRATION COST	Sept 1	Oct 1	Curren	t Dec 1	Jan 1	On-Site
Attendee Full	\$695	\$795	\$795	\$895	\$995	\$1,395
Speaker/Gov't/VIP	\$595	\$695	\$695	\$795	\$895	\$1,295
3-Day Conference	\$395	\$495	\$495	\$595	\$695	\$1,095

Full/Speaker/Gov't/ VIP Registration includes:

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

3-Day Conference Registration includes:

- Network at 8 functions (without meals)
- Attend all 600 technical presentations in 3 days
- Access to the 200 booth exhibit hall all 3 days

Who should attend?

INDUSTRY LEADERS AND POLICY MAKERS:

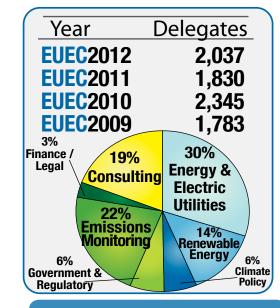
- CORPORATE ENERGY & SUSTAINABILITY EXECUTIVES
- RENEWABLE ENERGY ENTREPRENEURS
- BUSINESS DEVELOPMENT PROFESSIONALS
- UTILITY AND ENERGY EXECUTIVES
- LAWYERS, ACCOUNTANTS AND CONSULTANTS
- U.S. LEGISLATORS, GOVERNMENT AGENCIES
- SCIENTISTS AND RESEARCHERS

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



EUEC2013 Format

- All sessions 2 hours long
- 6 Speakers per session
- 20 minutes per speaker





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.



Power by Association^a

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.



Prabhu Dayal - 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 27th 1 pm to 7 pm

SHOW TIMES

Mon. Jan 28th - 11 am to 7 pm Tue. Jan 29th - 9 am to 7 pm Wed. Jan 30th - 9 am to 12 pm

EXHIBIT TEAR DOWN

Wed. Jan 30th - 12 to 4 pm

Conference Schedule

Sunday | January 27, 2013

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 28, 2013

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

1:00 pm - 3:00 pm Technical Session - 1

3:00 pm - 3:30 pm Networking Break - Exhibit Area 2

3:30 pm - 5:30 pm Technical Session - 2 4:00 pm - 7:00 pm Exhibitor Invited Guests

5:00 pm - 7:00 pm Networking Reception - Exhibit Area 3

Tuesday | January 29, 2013

7:30 am - 9:30 am Technical Session - 3 9:00 am - 7:00 pm Exhibit Hall Open

9:30 am - 10:00 am Networking Break - Exhibit Area 4

10:30 am - 12:00 pm Technical Session - 4

12:00 pm - 1:00 pm Networking Lunch - Exhibit Area 5

1:00 pm - 3:00 pm Technical Session - 5

3:00 pm - 3:30 pm Networking Break - Exhibit Area 6

3:30 pm - 5:30 pm Technical Session - 6 4:00 pm - 7:00 pm Exhibitor Invited Guests

5:00 pm - 7:00 pm Networking Reception - Exhibit Area

Wednesday | January 30, 2013

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 8

 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 28th, 8:00 AM - 11:00 AM

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



EPA REGULATORY UPDATE

Hon. Gina McCarthy — 8:00 - 8:30AM
Assistant Administrator | U.S. Environmental Protection Agency

Q.EDA United States



NATURAL GAS & AMERICA'S ENERGY SECURITY

Hon. Chris Smith — 8:30 - 9:00AM

Deputy Assistant Secretatry | U.S. Department of Energy





REGULATORY CHALLENGES. TECHNOLOGY SOLUTIONS

Mike Morris — 9:00 - 9:30AM

Chairman | American Electric Power





THE POWER SYSTEM OF THE FUTURE - INNOVATIONS, TRENDS AND SIGNPOSTS

Dr. Bryan Hannegan — 9:30 - 10:00AM

Vice President | Electric Power Research Institute





SHALE GAS: A GAME-CHANGER FOR US ENVIRONMENTAL POLICY?

Mark Brownstein — 10:00 - 10:30AM

Chief Counsel | Environmental Defense Fund





HIGHLIGHTS OF EUEC2013

Dr. Prabhu Dayal — 10:30 - 11:00AM

Chairman | EUEC

SEUEC

Mission Statement

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

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Track	Α	В	С	D	E	F	G	Н		J
Sessions	Air Policy & Regulations	Pollution Monitoring & Modeling	Mercury Multi-Pollutant Control	Natural Gas & Energy Security	Renewable Energy	Operations & Mgmt	GHG, Carbon Mgmt & CCS	Biofuels & Biomass	Sustainability & Water	Energy Efficiency
Room	221A & B	221C	222A & B	222C	223	224A	224B	225A	228B	229A
Monda	ay January 2	8								
1:00PM to 3:00PM	Regulatory Update I	CEMS & MATS	Hg Control Demonstrations	Shale Gas & New Markets	Renewable Energy	Energy Cybersecurity	Carbon Footprint	Algae	Energy Sustainability	Energy Efficiency
2 3:30PM to 5:30PM		HCL Monitoring	Hg Control & Bromine	Fracking & Sustainable Development	Distributed Generation	Compliance Technologies & Strategies	Tailoring Rule/NSR/ GHG BACT	Biofuels / Ethanol / Biodiesel	Sustainability Projects	Energy Mgmt.
Tuesd	ay January 2	29								
37:30AM to 9:30AM	NAAQS	PM, Opacity & Visability	Control Technologies I	Energy Policy	Renewable Development Analysis	Power Plant & Boiler Optimization	Planning & GHG Reporting	Biomass / Cofiring in Power Plants	Sustainability Reporting	Smart Grid
410:00AM to 12:00PM	NSR	Mercury Measurement	Control Technologies II	Energy Policy - Natural Gas	Renewable Project Development	EHS & EMIS	Corporate Strategies & Risk Mgmt.	Bio & Waste Energy	316b	Energy Efficiency & Mgmt.
5 1:00PM to 3:00PM	Compliance Strategies	Emission Testing & Monitoring	MATS	State, Regional & Infrastructure	New Technology	EHS & Risk Management	California Cap & Trade	Biogas & MSW	Water Sustainability I	Demand Response
6 3:30PM to 5:30PM		Monitoring & Reporting	Dry Sorbent Injection	Energy & Climate	Solar & PV	Coal ASH / CCP	GHG Stratagies Post Kyoto	Biogas / MSW / LFG	Water & Electric Utilities	Energy Conservation & Storage
Wedn	esday Janua	ry 30								
7:30AM to 9:30AM	Compliance	Modeling	Activated Carbon & Hg Sorbents	Managing Risk & Project Finance	Project Development / IP	Natural Resource Mgmt HCP	CCS: Carbon Capture & Storage		Water Sustainability II	Compliance Strategies for
8 10:00AM to 12:00PM	Clean Air Policy	Cement Industry Issues	SCR		Batteries, Storage & RE Development	Operations & Management	CCS II			Regulatory Requirements URS
9 1:00PM to 3:00PM	Regulations		Advanced Control Technologies II							

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A1. REGULATORY UPDATE I

Jay Holloway, Partner, Winston & Strawn LLP

Roger Martella, Attorney, Sidley Austin LLP

Bill Wehrum, Partner, Hunton & Williams LLP

EPA RULES & ACTIONS ON ELECTRIC UTILITY GENERATION

A1.3 IS FEDERALISM ALIVE UNDER THE CLEAN AIR ACT?

Tuesday | January 29

A4. NSR

10AM - 12PM

A4.1 RECENT DEVELOPMENTS IN NSR

Gary McCutchen, Principal, RTP Environmental Associates, Inc.

A4.2 NEW SOURCE REVIEW SETTLEMENTS IN A CHANGING REGULATORY CLIMATE

Liz Williamson, Partner, Winston & Strawn LLP A4.3 WEAKENING OF THE PSD/NSR HAMMER

Karl Karg, Partner, Latham & Watkins LLP

A4.4 THE UTILITY NEW SOURCE REVIEW ENFORCEMENT INITIATIVE – MORE THAN A DECADE OLD & IT KEEPS GOING, & GOING, & GOING.

Makram Jaber, Partner, Hunton & Williams LLP

A4.5 CAUSATION & EFFECT: EMISSIONS ANALYSES IN RETROSPECTIVE NSR CASES

Marc Chupka, Principal, The Brattle Group

and Co-Chair LATHAM≗ WATKINSUP

Session Sponsor

Karl Karg



1PM - 3PM

Session Sponsor

and Co-Chair

Block Andrews, Strategic Environmental Solutions Director, Burns & McDonnell

A1.5 RECENT REGULATORY DEVELOPMENTS AFFECTING PERMITTING OPTIONS Thomas Echikson, Partner, LeClairRyan

Session Sponsor A1.1 REPORT FROM THE SCENE OF THE TRAIN WRECK -- UPDATE ON THE IMPACT OF NEW

A1.6 FIRST CAIR, THEN CSAPR. WHAT'S NEXT?

Daniel Chartier, Director - Environmental Markets & Air Quality Programs, Edison Electric Institute

A1.4 UTILITY REGULATORY UPDATE: IMPLICATIONS & STRATEGIC CONSIDERATIONS FOR

A1.2 THE NEXT FOUR YEARS: HOW THE OUTCOME OF THE ELECTION WILL IMPACT THE CLEAN

3:30PM - 5:30PM

1PM - 3PM

and Co-Chair

WINSTON

&STRAWN

Jay Holloway

Burns &

McDonnell

Block Andrews

Peter Belmonte

Session Sponsor A2. REGULATORY UPDATE II

and Co-Chair A2.1 POWER GENERATOR REGULATIONS, 2010-2020

John Kinsman, Sr. Director, Environment, Edison Electric Institute

A2.2 UPDATE TO COAL UNIT RETIREMENTS & GRID RELIABILITY

M. Gary Helm, Sr. Market Strategist, PJM Interconnection

A2.3 EPA PROPOSAL TO REVISE MATS EMISSION LIMITS FOR NEW ELECTRIC GENERATING

UNITS

Monday | January 28

AIR ACT AGENDA

COMPLIANCE

Ralph Roberson, President, RMB Consulting & Research

A2.4 CLEAN AIR ACT ABACK - THE MACT CONUNDRUM Peter Belmonte, Sr. Partner, Environmental Resources Management; Robert Fraser

A2.5 UTILITY REGULATORY UPDATE: IMPLICATIONS & STRATEGIC CONSIDERATIONS FOR COMPLIANCE

Mike Borgstadt, Manager - Resource Planning, Burns & McDonnell Engineering Co.

A2.6 STARTUP & SHUTDOWN ALLOWANCES - A CASE STUDY ON UNIT START UP

Patrick Leming, Software Services Manager, Babcock & Wilcox Power Generation Group; John Downs

John Kinsman

A2.7 UPDATE ON GREENHOUSE GAS NSPS REGULATIONS

Tauna Szymanski, Senior Associate, Hunton & Williams LLP

Tuesday | January 29

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

Co-Chair Kurt Kisslina A3.1 THE STATE OF THE NAAQS

Kurt Kissling, Attorney at Law, Pepper Hamilton LLP

A3.2 COMPLIANCE CHALLENGES POSED BY THE NAAQS FOR SO2, NO2, & PM2.5

Robert Paine, Technical Director, AECOM; David Heinold & Robert Iwanchuk

A3.3 REGULATORY UPDATE & IMPLICATIONS OF THE PM2.5 NATIONAL AMBIENT AIR QUALITY

Co-Chair

Robert McCann, Principal Director Air Resources, Golder Associates Inc. Howard Ellis

A3.4 AMBIENT SO2 STANDARD: NONATTAINMENT, UNCLASSIFIABLE, MODELING.

MAINTENANCE (OR INFRASTRUCTURE) SIP, .. WHERE ARE WE?

Harold Robbins, President, Bison Engineering Inc.

A3.5 HOW ELECTRIC POWER COMPANIES CAN BEST DEAL WITH THE CHALLENGES OF STATES DEVELOPING SIPS TO DEMONSTRATE ATTAINMENT OF THE 1-HOUR SO2 NAAQS

Howard Ellis, President, Enviroplan Consulting; Dr. Allen Dittenhoefer & Michael Hirtler, CCM

A3.6 RECENT HAPPENINGS REGARDING THE EXCEPTIONAL EVENT RULE

Samuel Lofland, Attorney, Ryley Carlock & Applewhite; James Sanderson

A5. COMPLIANCE STRATEGIES

A5.1 PRACTICAL NSR COMPLIANCE

Mack McGuffey, Partner, Troutman Sanders LLP

A5.2 PRACTICAL OPERATING PERMIT COMPLIANCE

George Lipka, Consulting Engineer, Tetra Tech EC

A5.3 PRACTICAL COMPLIANCE EXPERIENCE

Maureen Gannon, Executive Director of Environmental Services, PNM Resources Inc.

A5.4 PRACTICAL CONSIDERATIONS FOR ENVIRONMENTAL COMPLIANCE STRATEGY **DEVELOPMENT**

Brian Toth, Climate & Renewable Strategy Manager, Southern Company

A5.5 EPA'S CROSS STATE RULE. THE LITIGATION. IMPLEMENTATION COMPLIANCE

Dave Tripp, Partner, Stinson Morrison Hecker, LLP; Daniel R. Wilkus, Westar Energy

A5.6 OVERVIEW OF THE NON-HAZARDOUS SECONDARY MATERIAL RULE: IS YOUR FUEL A **SOLID WASTE?**

Melissa Hillman, Managing Consultant, Trinity Consultants

TROUTMAN SANDERS Randy Broadon



3:30PM - 5:30PM

Session Sponsor and Co-Chair

A6. MACT

A6.1 THE UTILITY MACT RULE: ONE YEAR LATER

Michael Rossler, Manager - Environmental Programs, EEI

A6.2 BOILER MACT ENERGY ASSESSMENTS

Robert McCann, Principal Director Air Resources, Golder Associates Inc.: Dorothy Austin, Ying Ng

A6.3 MACT COMPLIANCE TECHNOLOGIES

Scott Bayon, Director of Sales, Anguil Environmental Systems, Inc.

A6.4 INJECTION OF GAS-PHASE BROMINATED PAC UPSTREAM OF WET SCRUBBERS FOR HG CONTROL

Jon Miller, Technical Service Engineer, Albemarle Environmental Division; Ron Landreth

A6.5 STATISTICS IN ENVIRONMENTAL POLICY MAKING & COMPLIANCE IN AIR QUALITY: SOURCE TEST DATA INTERPRETATION IN BOILER & UTILITY MACT

Joy Brooks, Senior Associate, ENVIRON International Corporation; Glenn England & Joe

8

A6.6 OLD SMOKEY POWER. THE MATS CONUNDRUM PART 2.1

Bob Fraser, Partner, ERM; Peter Belmonte & Nuno da Silva, ERM; Lise Laurin, EarthShift

Michael Rossler

7:30AM - 9:30AM A7. PERMITS & COMPLIANCE

& Co-Chair

Wednesday | January 30

Session Sponsor A7.1 PERMITTING OF NEW AIR QUALITY CONTROL EQUIPMENT ADDITIONS FOR "ALPHABET SOUP" COMPLIANCE: SUCCESSES & CAUTIONS

Steven Babler, Air Quality Engineer, Sega Inc.; Brian Petermann

A7.2 CONVERTING FROM COAL TO NATURAL GAS - CHANGES TO COMPLIANCE MONITORING

John Downs, Regulatory Manager, Babcock & Wilcox Power Generation Grp.; Mark Holt A7.3 QUALITY ASSURANCE CONSIDERATIONS FOR METEOROLOGICAL DATA USED IN POWER PLANT PERMITTING

Ping Wan, Senior Principal Engineer, Bechtel Power Corporation

A7.4 DO I REALLY NEED TO MODEL? Pina Wan Teresa Raine, Principal Consultant, ERM

A7.5 AIR PERMITTING FOR RECIPROCATING ENGINE PROJECTS FOR ELECTRICITY

GENERATION

Mary Hauner-Davis, Manager, Air/Noise Department, Burns & McDonnell; Minda Nelson A7.6 STREAMLINING THE PERMITTING PROCESS - CASE STUDIES FROM GAS-FIRED

Teresa Raine COMBUSTION TURBINE LICENSING

Anand Yegnan, Senior Consultant/Project Manager, ERM; John Sherwell, Maryland DNR;

Julie Ross, Mark Garrison, & Jennifer Flannery, ERM

10AM - 12PM

Co-Chair

A8. CLEAN AIR POLICY

Session Sponsor A8.1 WHAT'S A PLANT TO DO? NAVIGATING CONFLICTS BETWEEN STATE PRIMACY & and Co-Chair FEDERAL OVERSIGHT

Eric Hiser, Partner, Jorden Bischoff & Hiser, PLC

A8.2 SUMMARY OF REGIONAL EMISSIONS & AIR QUALITY TRENDS, 1999-2010

Bill Smalling, LL, M., Esq. Eugene Trisko, Attorney at Law, On behalf of ACCCE

C. William Smalling, PLLC A8.3WILL THE REFINING INDUSTRY SURVIVE THE CLEAN AIR ACT?(OR, WILL THE NEXT STRAW Bill Smalling

BREAK THE CAMEL'S BACK)

Bill Smalling, Attorney at Law, C. William Smalling, Attorney at Law, PLLC.

A8.4 CAN THIS PROPOSED POWER PROJECT BE BUILT? Co-Chair

Eri Ottersburg, Senior Engineer, SLR International; Ray Hendricks, Portland General Electric Eugene Trisko

A8.5EPA'S REGIONAL HAZE PROGRAM - A NEW AGENDA FOR VISIBILITY

Norman Fichthorn, Partner, Hunton & Williams LLP; Aaron Flynn

1PM - 3PM

A9. AIR POLICY & REGULATIONS

Session Sponsor A9.1 ADVANCED SELECTIVE CATALYTIC REDUCTION SYSTEM OPERATING ON A COAL FIRED and Co-Chair BOILER IN TAIWAN

Kevin Dougherty, VP of Marketing & Business Development, Fuel Tech, Inc.; Len Johnson, Midwest Generation; Jon Horek, Sargent & Lundy; Kevin Krause, Fuel Tech, Inc.

FUEL TECH A9.2 THE ONE-HOUR WARS: HOW TO WIN

Kevin Dougherty Mark Garrison, Partner, ERM

A9.3 OBTAINING AN EXTENSION ON THE 18 MONTH CONSTRUCTION DEADLINE FOR YOUR

PSD PERMIT

Eri Ottersburg, Senior Engineer, SLR International; Ray Hendricks, Portland General Electric A9.4 DEVELOPING A WTO COMPATIBLE CARBON TAX TO BUILD A CLEAN HYBRID POWER

Mark Garrison

Co-Chair

Katelin Knox, Graduate Research Associate, University of Denver; Stephen Sewalk

B1. CEMS & MATS

B1.1 SOFTWARE CEMS & ALTERNATIVE TO HARDWARE Joseph Miller, Technical Consultant - Environmental, Rockwell Automation

B1.2 MERCURY & AIR TOXICS STANDARDS (MATS) CEMS DESIGN & NEW MONITORING

REQUIREMENTS

Keith Crabbe, Engineering Manager, Cemtek Environmental; Tim Kuiken

B1.3 SO3 SOURCE EMISSION SAMPLING METHODOLOGIES

David Ostaszewski, Senior Managing Engineer, O'Brien & Gere Engineers

B1.4 CEMS SYSTEMS SPECIFICALLY FOR COMBINED CYCLE POWER PLANTS

Deborah Padwater, Strategic Industry Manager - Power, Sick Maihak GmbH

B1.5 MERCURY & AIR TOXICS STANDARD (MATS) EMISSION TESTING REQUIREMENTS, **RECOMMENDATIONS & COST COMPARISONS**

Rick Krenzke, Project Director, TRC; Mike Martin, Senior Project Manager, TRC Environmental Corporation; Jeff Burdette

B1.6 FULL-SCALE MULTISITE EVALUATION OF THE MULTIELEMENT SORBENT TRAP SAMPLING (ME-ST) METHOD FOR HALOGEN

John Pavlish, Sr. Research Advisor, Energy & Environmental Research Center; Jeffrey **Thompson**

1PM - 3PM

Session Sponsor & Co-Chair

CEMTEK

Tim Kuiken

Co-Chair John Paylish

3:30PM - 5:30PM

Co-Chair

Sylvie Bosch-Charpenay

B2. HCL MONITORING

B2.1 HCL EMISSIONS MEASUREMENTS USING FTIR

Sylvie Bosch-Charpenay, Senior Applications Scientist, MKS Instruments; Barbara Marshik,

B2.2 HCL MONITORING - BEST PRACTICES & FIELD EXPERIENCE

Heimo Breton, Head of Corp. Solutions Center, SICK Process Automation

B2.3 FTIR MONITORING SYSTEM PROVIDES TIGHTER CONTROL ON EMISSIONS FROM CARBON CAPTURE PROCESS

Jim Cornish, Technical Sales & Support, Gasmet Technologies; Luc Sevrette **B2.4 HCL CEMS**

Phil McMaster, North Amer, Mar-Sales, Perma Pure, LLC: Seth Morrell, Sales & Marketina Coordinator, Altech Environment U.S.A.

B2.5 REQUIREMENTS OF PS-18 FOR FTIR MEASUREMENT OF HCL FOR UTILITY & CEMENT INDUSTRIES

Kevin Ramazan, Vice President, FTIR Operations, California Analytical Instruments, Inc.

Co-Chair Kevin Ramazan

7:30AM - 9:30AM

Session Sponsor

and Co-Chair

B3. PM, OPACITY & VISIBILITY

B3.1 AN UPDATED REVIEW OF PM SPIKING FOR PM CEMS CALIBRATION

Robert Baxter, President, B3 Systems, Inc.; Derrick Hinkle

B3.2 DIGITAL CAMERA BASED CONTINUOUS EMISSION MONITORING Shawn Dolan, President, Virtual Technology LLC

B3.3 PM2.5 EMISSIONS TEST METHODS COMPARISON, LIMITATIONS & BENEFITS

Kevin Crosby, Technical Director, Avogadro Group; Craig Thiry

B3.4 APPLICATION OF MOBILE DEVICES FOR VISIBLE EMISSIONS

Sue Sung, Dir - EHS Technology, Trinity Consultants; Adam Williams & Nick Petro

B3.5 PM MONITORING OPTIONS UNDER THE UTILITY MATS RULE

Steve Norfleet, Project Manager, RMB Consulting & Research, Inc.; Jon Konings, We **Enaeraies**

B3.6 PRACTICAL PM-CEMS & PM-CPMS FOR WET AND DRY FGD PLANT

William Averdieck, Managing Director, PCME

January 29 Tuesday

John Watson & Judi Chow



Tuesday | January 29

10AM - 12PM

B4. MERCURY MEASUREMENT

Session Sponsor and Co-Chair

B4.1 TECHNICAL ADVANCES IN HG CEM'S - UPDATE

Dan Kietzer, Business Development Manager, SICK Process Automation

B4.2 MERCURY SPECIATION MEASUREMENTS FROM BOILER TO STACK

James Wright, Director - Advanced Monitoring Solutions, Clean Air Engineering; T. Rodak, J. McKeever

Dan Kietzer

B4.3 MONITORING MERCURY & NON-MERCURY HAP METALS WITH A SINGLE CEMS

Douglas Barth, Business Development Mgr. Pall Corporation; Krag Petterson & Marty Ladner **B4.4 ELEMENTAL MERCURY IN SOIL BY SEQUENTIAL EXTRACTION FOR COMPLIANCE WITH**

ILLINOIS RISK BASED CLEAN-UP

Don Cortes, Chief Scientific Officer / VP, STAT Analysis Corporation; Surendra Kumar **B4.5 RESULTS FROM A GOLD NANOPARTICLE MERCURY DETECTION SYSTEM**

Jay James, Founder, Picoyune; Donald Lucas Ph.D., Lawrence Berkeley National Laboratory; Catherine Koshland, UC Berkeley

B4.6 BEST PRACTICE CONSIDERATIONS FOR EPA PS 12B – SOLID SORBENT METHOD FOR CONTINUOUS MERCURY MONITORING

Robert Brunette, Scientist, Eurofins Frontier Global Sciences; Eric Roland, Gerard van Der

Jagt, Ryan Nelson

1PM - 3PM

B5. EMISSION TESTING & MONITORING

Session Sponsor B5.1 TRANSFORMING NATURAL GAS LEAK DETECTION AT HIGHWAY SPEEDS

and Co-Chair Chris Vale, Energy & Natural Gas Program Manager, Picarro inc.

B5.2 FIELD TESTING OF AN IN SITU SO3/SO2/H2O CONTINUOUS REAL-TIME MONITOR

Curtis Laush, Senior Scientist, IMACC

Tiger ptics...

B5.3 FLUE GAS CONTAMINANT MEASUREMENT FROM OXY-COMBUSTION IN A COAL-FIRED POWER PLANT

Graham

Leggett

Kenneth Wong, Sr. Staff Scientist, American Air Liquide; Morgane Riviere, Air Liquide France

B5.4 ONGOING FIELD TEST EXPERIENCES WITH THE AUTOMATIC SORBENT TRAP

MONITORING SYSTEM

Jurgen Reinmann, Branch Manager, Environnement S.A Deutschland; Seth Morrell, Altech

Environmental USA

Co-Chair Chris Vale

B5.5 CONTINUED AUTOMATION OF CEMS

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

B5.6 CONTINUOUS WAVE CAVITY RING-DOWN SPECTROSCOPY FOR ENVIRONMENTAL

APPLICATIONS

Graham Leggett, Global Product & Sales Manager - Environmental Division, Tiger Optic

3:30PM - 5:30PM

and Co-Chair

₹

Session Sponsor B6. MONITORING & REPORTING

B6.1 MATS COMPLIANCE - HOW WILL EPA DETERMINE COMPLIANCE? HOW WILL YOUR DAHS DEMONSTRATE COMPLIANCE?

John Downs, Regualtory Manager, Babcock & Wilcox Power Generation Grp.; Joel Millard

B6.2 FUTURE CHALLENGES FOR CEMS DAHS SYSTEMS

Mark Shell, Chief Technology Officer, Environmental Systems Corporation

B6.3 OPTIONS FOR DEMOSTRATING MATS COMPLIANCE - ADVANTAGES & BLACK & VEATCH DISADVANTAGES

Diane Fischer

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

B6.4 15 YEARS OF MERCURY SPECIATION EMISSIONS MEASUREMENTS USING MODIFIED US **EPA METHOD 30B**

Gerard Van der Jagt, Mercury Laboratory Manager, Eurofins Frontier Global Sciences; Robert Brunette, Eric Roland, Ryan Nelson, Darren Miller, David Westby

B6.5 MEASURING ZERO POLLUTANTS

Robert Davis, Vice President - Environmental Sustainablity, Airgas

B6.6 NEW RULES FOR EPA PROTOCOL GASES

Robert Davis, Vice President - Environmental Sustainablity, Airgas

B6.7 SF6 & DECOMPOSITION GAS ANALYSIS THROUGH NON DISPERSIVE INFRARED TECHNOLOGY Vaughan Williams, International Sales Director, Energy Maintenance Technologies; Neil

Preliminary Program (1/2) Subject to Change

Wednesday | January 30

B7. MODELING

B7.1 MODELING LAKE RECOVERY FOLLOWING MERCURY EMISSIONS CHANGES

Leonard Levin, Technical Executive, Electric Power Research Institute: Krish Viiavaraahavan, Environ

B7.2 ADVANCED DISPERSION MODELING TECHNIQUES TO ASSIST WITH NAAQS COMPLIANCE

Robert Iwanchuk, Manager - Air Quality Engineering & Studies, AECOM; David Heinold, Richard Hamel & Robert Paine, AECOM; Eladio Knipping & Naresh Kumar, EPRI

B7.3 DOES EPA NEED MORE ADVANCED MODELS FOR SECONDARY FORMATION Gale Hoffnagle, Air Quality Consutling Practice Leader, TRC Environmental Corporation

B7.4 FORECASTING FOR EMISSION COMPLIANCE VIA OPERATIONAL MODELING

Scott Tampke, Business Development Manager, Black & Veatch

B7.5 SOLUTIONS TO AERMOD PREDICTED NAAQS EXCEEDANCES DUE TO BUILDING WAKE **EFFECTS**

Ron Petersen, Vice President, CPP, Inc.

B7.6 EVALUATION OF MODELING RESULTS USING A REFINED TECHNIQUE FOR PREDICTING IMPACTS FROM PORTABLE OR TRANSIENT SOURCES (TRANSVAP)

Richard Hamel, Air Quality Meteorologist, AECOM; Thomas Damiana

B7.7 A REAL-TIME MODEL FOR PERFORMANCE MONITORING USING EMISSIONS DATA

Sastry Munukutla, Emeritus Prof. of Mech. Eng., Tennessee Tech. Univ.

7:30AM - 9:30AM

Session Sponsor and Co-Chair



Gale Hoffnagle



Scott Tampke

10AM - 12PM

Session Sponsor



Co-Chairs **Johannes** Kasajanow

& John Kline

B8. CEMENT INDUSTRY ISSUES B8.1 MERCURY ABATEMENT IN US CEMENT INDUSTRY

John Kline, Principal, John Kline Consulting

B8.2 ACTIVATED CARBON RESULTS FROM FULL SCALE PLANT TESTING

Rex Keel, Business Manager, Norit Americas Inc.; John Satterfield, Research Associate, Norit **Americas**

B8.3 LOOKING FOR A CONCRETE-FRIENDLY SORBENT TECHNOLOGY?

Paul Barilla, Applications Specialist / Power Markets, W.L. Gore and Associates; Jeff A. Kolde & John J. Knotts

B8.4 A NOVEL APPROACH FOR MERCURY CAPTURE

Christopher Poling, Vice President, Mercury Capture Systems; Tom Lesniak

B8.5 DURAG'S HM 1400 TRXC @ CEMENT PLANTS Johannes Kasajanow, PhD, Durag GmbH

B8.6 IS SCR TECHNOLOGY COMING (BACK) TO CEMENT

John Kline, Principal, John Kline Consultina

Monday | January 28

1PM - 3PM

C1. HG CONTROL DEMONSTRATIONS

Co-Chairs

C1.1 APPLYING MONITOR & CONTROL STRATEGIES FOR HG EMISSIONS ACROSS WET FGD SCRUBBERS Bruce Keiser, Research Fellow, Nalco, an Ecolab Company; Jianwei Yuan, Rebecca Stiles &

Murray Abbott &

Philip Elliott

John Meier, Nalco, an Ecolab Company; Stephen Potter, Duke Energy Corporation

C1.2 A NOVEL APPROACH TO MERCURY CONTROL FROM COAL FIRED POWER PLANTS

Jeff Kolde, Product Specialist, W.L. Gore & Associates, Inc.; John Darrow, Rich Gebert, Steve Hardwick, Stephen Stark, W.L. Gore and Associates, Inc.; Jonas Klingspor, Tom Machalek, Blake Stapper: URS Corporation: Ramsay Chana, EPRI

C1.3 PERMANENT SYSTEM INSTALLATION OF A NOVEL MERCURY REMOVAL STRATEGY

Philip Elliott, Engineering Services Manager, STEAG Energy Services LLC

C1.4 ADVANCED ACTIVATED CARBONS FOR EFFICIENT MERCURY REMOVAL

Brandon Looney, Principle Engineer, Southern Company; Jacqueline Cecil, Robert Huston &

C1.5 FULL SCALE & PILOT SCALE FIELD STUDIES USING NORIT'S CONCRETE COMPATIBLE CARBON

Patton Adams, Developmental Engineer, Norit Inc.

C1.6 MULTI-POLLUTANT CONTROL USING THE CHEM-MOD LLC TECHNOLOGY

Murray Abbott, Manager of Technical Support, Chem-Mod LLC; Sally Wasikowski & George Kotch, Chem-Mod LLC; Jay Gunderson, Energy & Environmental Research Center

3:30PM - 5:30PM

and Co-Chair C2.1 EMO™

Session Sponsor C2. HG CONTROL & BROMINE

Bobby Chen, Client Program Mgr., Shaw Environmental & Infrastructure Grp.; Randall Moore C2.2 INTERACTION OF HAPS, HG & BROMINATED ACTIVATED CARBON IN COMBUSTION

Great Lakes

A Chemtura Busines Jon Lehmkuhler

Erik Rupp, Research Associate, Stanford Univ. Energy Resources Engineering; Jennifer Wilcox C2.3 IN PURSUIT OF THE NEW-PLANT MATS HG CONTROL LIMIT: FULL SCALE TEST RESULTS USING ALSTOM'S KNXTM MERCURY CONTROL TECHNOLOGY WITH NORIT'S PAC PRODUCTS Thomas Pearson, Principal Process Engineer, Alstom Power, Inc. Environmental Control Systems: Brad Donat & John David, Norit Americas Inc.

C2.4 ADVANTAGE OF ALBEMARLE GAS-PHASE BROMINATED ACTIVATED CARBON FOR MERCURY CONTROL IN DRY SCRUBBERS - SDA/CDS APPLICATIONS

Thomas Gale

SOUTHERN RESEARCH Behrooz Ghorishi, R&D Director, Albemarle Corp.; Emma Zhou, John Parks & Will Pickrell C2.5 MAXIMIZING MERCURY CAPTURE UNDER CHALLENGING COMBUSTION SCENARIOS

Marcus Sylvester, VP of Sales, Midwest Energy Emissions Corporation

C2.6 BROMINE INJECTION SYSTEM PROTOTYPE FOR EFFECTIVE HG MITIGATION Thomas Gale, Catalyst Manager, Southern Research Institute; George Blankenship

C2.7 DEMONSTRATION OF TECHNOLOGY FOR ENHANCED HG CONTROL WITH SDA & CDS

Rebecca Stiles, Sr. Research Chemist, Nalco, an Ecolab Company; Bruce Keiser & Nicholas Ergang, Nalco Company; Steve Smokey, GRE Stanton Station

C3. CONTROL TECHNOLOGIES I

C3.1 START UP & OPERATING EXPERIENCE NRG INDIAN RIVER NID DFGD

Mark Fiedler, Principal Process Engineer, Alstom Power

C3.2 THE FACT & FICTION OF SCR CATALYST REGENERATION

Mark Ehrnschwender, VP of Business Development, STEAG Energy Services LLC

C3.3 MERCURY CONTROL & ITS INTERRELATION TO POWER PLANT OPERATION & OTHER AIR **POLLUTION CONTROL TECHNOLOGY**

Mark Sankey, Senior Engineering Specialist, Bechtel Power Corporation; Don Koza & Michelle Golden

C3.4 MERCURY CONTROL FOR UTILITY BOILERS THAT REQUIRE FLUE GAS CONDITIONING David Young, Engineer III, ADA-ES, Inc.; Ken Baldrey, Brian Donnelly, Greg Filippelli C3.5 OPERATING A CIRCULATING DRY SCRUBBER AT LOW & VARIABLE BOILER LOADS Terence Ake, Product Manager, Babcock Power, Inc.; Roderick Beittel & Anthony Licata C3.6 GAME-CHANGING MULTI-POLLUTANT EMISSIONS CONTROL TECHNOLOGY Kevin Crapsey, VP of Corporate Strategy & Development, Eco Power Solutions

Tuesday | January 29

7:30AM - 9:30AM

Session Sponsor and Co-Chair



Mark Sankey



10AM - 12PM

C4. CONTROL TECHNOLOGIES II

C4.1 BASF MERCURY SORBENTS - UPDATE ON MINERAL BASED TECHNOLOGIES FOR MERCURY CAPTURE IN COAL-FIRED POWER PLANTS

William Hizny, Technical Projects Manager, BASF Corporation; Fabien Rioult & Xiaolin Yang C4.2 INITIAL OPERATION & PERFORMANCE OF THE INTEGRATED DFGD/WFGD FOR CLIFFSIDE 6

Harry Lancaster, Project Manager, Duke Energy; Phil Rader & Dale Love, Alstom **C4.3 CODEPENDENCE OF MULTIPOLLUTANT CONTROLS & THE AIR PREHEATER**

John Guffre, Senior Research Scientist, Paragon Air Heater Technologies, Inc.

C4.4 EMISSIONS CONTROL SYSTEM UPGRADES FOR INDIAN RIVER UNIT 4

Steve Bjorklun, Senior Associate Process Engineer, Burns & McDonnell Engineering Company, Inc.; Gerry Hopper, NRG; Kristin Glikbarg & Paul Brandt, Burns & McDonnell

C4.5 EVALUATION OF HG CONTROL TECHNOLOGIES WHILE OXY-FIRING A PRB COAL

Brydger Van Otten, Engineer, Reaction Engineering International; Andrew Fry & Brad Adams, Reaction Engineering International; Jost Wendt, Geoff Silcox & Ignacio Preciado, University of Utah; Larry Bool, Praxair

C4.6 A HIGH REACTIVE HYDRATED LIME FOR CHALLENGING DSI APPLICATIONS

Curt Biehn, Manager, Marketing & Technical Services, Mississippi Lime Company; Mark DeGenova, Randy Griffard, Eric Van Rens & Richard Zhang

Session Sponsor and Co-Chair





1PM - 3PM

Session Sponsor

and Co-Chair

C5. MATS

C5.1 HCL & MERCURY MITIGATION WITH DSI

Brent Tidemann, Chemical Engineer - Manager, Nol-Tec Systems; Michael Thiel C5.2 MATS COMPLIANCE SOLUTION FOR UNSCRUBBED COAL-FIRED BOILERS

Jonas Klinaspor, Vice President, URS Corporation: Tom Machalek, Blake Stapper, URS; Jeff Kolde, John Darrow, Richard Gebert, Stephen Stark, W.L. Gore and Associates, Inc.

C5.3 PREPARING FOR THE MERCURY AIR TOXICS STANDARD (MATS)

Thomas Campbell, Mar. - Field Demonstrations, ADA-ES, Inc.: Andrew Szafarz: Alliant Energy, Inc.; Sharon Sjostrom, Greg Filippelli, Martin Dillon & David Young, ADA-ES, Inc. C5.4 ADDRESSING MATS & MERCURY RE-EMISSIONS WITH MULTI-POLLUTANT EMISSIONS

CONTROL TECHNOLOGY Sanjeev Jolly, Vice President of Engineering, Eco Power Solutions

C5.5 DECISION MAKING FOR MAT COMPLIANCE

Joel Millard, KVB-Enertec Regualtory Specialist, Babcock & Wilcox Power Generation Group; Bill Eberhardt

C5.6 CO-ABSORPTION OF MERCURY IN A WET FLUE GAS DESULFURIZER

Joe Stuart, Director of Commercial Development, TDC, division of Genesis Energy Limited; Steve Feeney, Babcock & Wilcox Power Generating Group

C5.7 A SYSTEM EVALUATION APPROACH IN IMPLEMENTING DSI FOR MATS COMPLIANCE Anthony Silva, Advisory Engineer, Babcock & Wilcox; Ţ. Ruppelli, S. Kumar, & J. Knapik





C9. ADVANCED CONTROL TECHNOLOGIES

C9.1 PROSPECTS FOR PASSIVE BIOLOGICAL TREATMENT OF SELENIUM IN FGD

C9.2 PARTICULATES & MERCURY REMOVAL USING KIMRE(TM) TECHNOLOGY

James Bays, Technology Fellow, CH2M HILL; Tom Higgins, Dana French, BT Thomas

1PM - 4PM

Co-Chairs Balaii Krishnakumar ጲ

George C. Pedersen Jr. PE, CEO, KIMRE, INC. C9.3 UTILITY MATS COMPLIANCE W/ HCL LIMITATIONS & THE CHALLENGES FACING AGING

Paul Johnson, Project Manager, ADA-ES, Inc.: Andrea Taylor, Tennessee Valley Authority: David Young, John Schminky & Greg Filippelli, ADA-ES, Inc. C9.4 IS THERE A PLACE FOR DSI AT DETROIT EDISON? William Rogers, Sr. Technological Specialist, DTE Energy; Robin Stewart, Andrew Bertelson,

Jordan Copenhafer, Nathan Sonobe & Trent Lynch, ADA-ES, Inc. C9.5 THE LATEST CONTROL TECHNOLOGY OF TRACE ELEMENTS USING HEAT EXCHANGER

Naruhito Omine, Engineering Researcher, Babcock-Hitachi K.K.; Noriyuki Imada, Wakako Shimohira, Gouki Sasaki, Atsushi Katagawa, Hiroshi Ishizaka

C9.6 REACT MULTIPOLLUTANT SYSTEM - AN OPTION TO CONSIDER

Jim Peters, VP Business Development, Hamon

WASTEWATERS

EGUS

C9.7 STRATIFICATION CONSIDERATION IN DSI OPTIMIZATION Charles Lockert, President, Breen Energy Solutions

C9.8 APPLICATION OF THE DRYFINING™ TECHNOLOGY AT EXISTING POWER UNITS FIRING LOW-RANK COAL

Charles Bullinger, Senior Principle Engineer, Great River Energy; Vladimir Vaysman & Yixin Lu, WorleyParsons

C9.9 ANALYTICAL MGMT. OF SCR CATALYST LIFETIMES & MULTIPOLLUTANT PERFORMANCE Balaii Krishnakumar, Sr. Computational Analyst, Niksa Energy Associates LLC; Stephen Niksa, Niksa Eenray Associates LLC; Farrokh Ghoreishi & Corey Tyree, Southern Company

Tuesday | January 29

Natron

Co-Chair

Kevin Fisher

3:30PM - 5:30PM C6. DRY SORBENT INJECTION (DSI)

C6.1 BENEFITS OF CONDITIONED AIR IN TRANSLOADING WHEN USING TRONA FOR SO2 & ACID GASES MITIGATION IN COAL FIRED UNITS FLUE GAS STREAM Session Sponsor and Co-Chair

Jarret McClendon, Applications Engineer, Natronx Technologies

C6.2 THE EFFECT OF DRY SORBENT INJECTION (DSI) REAGENTS ON COAL COMBUSTION **BY-PRODUCTS**

Jim Dickerman, Director FGT, Lhoist North America; Melissa Sewell

C6.3 DSI FOR SO2. SO3. HCL. & HG REMOVAL - ANSWERS TO COMMON QUESTIONS

Jon Norman, DSI Technology Manager, United Conveyor Corporation

C6.4 ACID GAS & MERCURY MATS COMPLIANCE THROUGH SORBENT INJECTION Jarret McClendon

Chris Linrud, Senior Systems Project Engineer, ADA-ES, Inc.; Cody Wilson, Greg Filippelli,

Cameron Martin & Robin Stewart, ADA-ES; Bill Caputo, BCSI

C6.5 OPTIMIZATION OF DRY SORBENT INJECTION & PAC INJECTION FOR COST-EFFECTIVE **MULTI-POLLUTANT CONTROL**

Kevin Fisher, Senior Engineer, Element 1 Engineering, Inc.; Steve Smokey, Great River Energy

C6.6 STATUS OF THE DRY SORBENT INJECTION PROJECT AT BOARDMAN STATION

Bruce McCampbell, Project Manager, Shaw; Kenneth Fitzgerald & Christopher Wedig

Wednesday | January 30

7:30AM - 9:30AM C7. ACTIVATED CARBON & MERCURY SORBENTS

C7.1 RECENT INJECTION TRIALS OF MATS-PAC™ NON-HALOGENATED ACTIVATED Session Sponsor CARBON IN COAL-FIRED POWER PLANT FLUE-GAS

and Co-Chair David Mazyck, CEO, Carbonxt, Inc.; Dr. Heather Byrne & Jack Drwiega C7.2 HOW TO GUARANTEE THE LOWEST COST ACTIVATED CARBON TREATMENT SOLUTION

Richard Mimna, Senior Research Associate, Calgon Carbon Corporation; Michell Lomago

ÇalgonCarbon C7.3 ACTIVATED CARBON MARKET SUPPLY & DEMAND

Rob Nebergall, Global Business Manager - Emissions Control Technologies, Norit Inc.

C7.4 DEMONSTRATIONS OF AMENDED SILICATES FOR MERCURY CONTROL IN COAL FIRED Richard Mimna

GENERATING UNITS

Jim Butz, VP of Project Management, Novinda; Cliff Brown & Ben Bernardo

C7.5 IN-FLIGHT MERCURY CAPTURE OF NORIT'S NONCARBON SORBENT VERSUS DARCO Co-Chair

Rob Nebergall

Patton Adams, Developmental Engineer, Norit Inc.

C7.6 SORBENT TESTING IN THE LAB AND FIELD

John Kline Principal, John Kline Consulting; Anik Delagrave, Lafarge

10AM - 12PM

C8. SCR Session Sponsor

and Co-Chair C8.1 RELEASE & TRANSFORMATION OF POISONS IMPLICATED IN SCR CATALYST

Balaji Krishnakumar, Sr. Computational Analyst, Niksa Energy Associates LLC; Stephen Niksa,

NEA LLC; Alejandro Jimenez, EPRI CoaLogix

C8.2 SCR CATALYST MANAGEMENT CONSIDERATIONS

Nick Pollack, Chief Technology Officer, CoaLogix; Randy Sadler Randy Sadler

C8.3 SELECTIVE CATALYTIC REDUCTION SYSTEMS

Joe Smith, Business Development Manager, Peerless Mfg

C8.4 SNOXTM -THE ECONOMICAL WAY TO TURN HIGH-SULPHUR FUELS INTO POWER WITH Co-Chair

REDUCED CO2 EMISSIONS

Balaji Peter Ibæk, Business Develpment Manager, Haldor Topsoe A/S

Krishnakumar **C8.5 REGIONAL ENVIRONMENTAL REMEDIATION**

Gare Henderson, Director of R&D, Gravitational Systems Engineering, Inc.

C8.6 POLLUTION CONTROL COST MINIMIZATION

Jerrold Radway, Chairman, Enerchem

C8.7 OPTIMIZATION OF SCR CATALYST MANAGEMENT PLANNING

Kyle Neidig, Product Manager - SCR Catalyst, Hitachi Power Systems America, Ltd. Preliminary Program (1/9) Subject to Change 1.5

Room 222C

Monday | January 28

1PM - 3PM

D1. SHALE GAS & NEW MARKETS

Session Sponsor and Co-Chair

Farber Schreck

D1.1 THE EFFECT OF SHALE GAS ON NEW ENGLAND POWER MARKETS

Stephen Slocomb, Associate, Epsilon Associates

D1.2 OPTIONS FOR CAPTURING THE VALUE OF SHALE GAS: ENVIRONMENTAL, ECONOMIC & **ENERGY SECURITY PERSPECTIVES** Brownstein Hyatt

Joe Marriott, Lead Associate, Booz Allen Hamilton; Robert Murray, Jesse Goellner, & Gary Leatherman

Les Lo Bauah

D1.3 SHALE GAS & LNG EXPORT: REGULATION OF A REW PHENOMENON

Les Lo Bauah, Shareholder/Partner, Brownstein

D1.4 KELLY A SYSTEMWIDE MODEL TO MEET THE CHALLENGES & MAXIMIZE THE ECONOMIC POTENTIAL FROM SHALE GAS EXTRACTION IN SMALL TOWN COMMUNITIES

Sayan Chakraborti, Senior Program Manager, MRIGlobal; Mark Abashian & Larry Brown,

MRIGlobal; Gregory Proctor, Prolific Technology

3:30PM - 5:30PM

Co-Chair Sarah Jordaan D2. FRACKING & SUSTAINABLE DEVELOPMENT

D2.1 PUBLIC CONFIDENCE & HYDRAULIC FRACTURING: FINANCIAL RESPONSIBILITY AS AN **ECONOMIC TOOL FOR RISK-SHARING**

Kerry Schlichting, Senior Associate, ICF International; Libby McCullough D2.2 FRACKING: ENVIRONMENTAL REGULATORY & POLICY UPDATE

Co-Chair

Stephen Sewalk

Megan Roberts-Satinsky, Associate, Venable LLP

D2.3 FRACKING POLICY: WRONG POLICY COULD DERAIL GAS PRODUCTION OVERNIGHT INCREASING COSTS TO HOMEOWNERS & INDUSTRY

Stephen Sewalk, Assistant Professor, University of Denver; Vincent Buscarello, Qionalin Dai &

Katelin Knox

D2.4 CREATING A SUSTAINABLE ENERGY SYSTEM THROUGH GAS & ELECTRIC

HARMONIZATION

Kelly Daly, Chair - Energy & Environmental Division, Stinson Morrison Hecker LLP

D2.5 ENVIRONMENTAL & ECONOMIC IMPACT ASSESSMENT OF SHALE GAS PRODUCTION & RESOURCES

Sarah Jordaan, Project Manager, EPRI; Sean Bushart

Tuesday | January 29

7:30AM - 9:30AM D3. ENERGY POLICY

D3.1 IMPACTS OF POTENTIAL FUTURE RULES & REGULATIONS ON INVESTMENT DECISIONS

Session Chair Larry Goldenhersh Sebastian Mankowski, Consultant, NERA Economic Consulting; Scott Bloomberg

D3.2 NATIONAL CAP & TRADE LEGISLATION- WHAT YOU NEED TO KNOW TO PREPARE Larry Goldenhersh, CEO, Enviance

D3.3 ENERGY POLICY IN THE WHITE HOUSE 2013 OBAMA VS. ROMNEY

Kelly Carnes, President, CEO, TechVision21

D3.4 CONSIDERING ENVIRONMENTAL & CULTURAL VALUES IN TRANSMISSION PLANNING

Byron Woertz, Senior Project Manager, Western Electricity Coordinating Council

D4. ENERGY POLICY - NATURAL GAS

D4.1 SHALE GAS IMPACTS ON US ELECTRIC POWER CO2 EMISSIONS

Daniel Klein, President, Twenty-First Strategies

D4.2 NATURAL GAS: AMERICA'S ALTERNATIVE TO GASOLINE?

Rob Barnett, Energy Analyst, Bloomberg Government

D4.3 ENERGY POLICY: WHAT'S NEXT?

Room 222C

Mitchell Baer, Director - Office of Oil & Gas Analysis, US DOE

D4.4 LEVERAGING THE LOW COST OF NATURAL GAS TO BRING IT TO UTILIZATION

Vijayan Chomatil, Entrepreneur, Kanab Energy

CANCELED - D4.5 ENDING OUR OIL ADDICTION

Eval Aronoff, Co-founder, Fuel Freedom Foundation: Yossie Hollander

10AM - 12PM

Session Sponsor



Mitchell Baer

Co-Chair Dan Klein

D5. STATE, REGIONAL & INFRASTRUCTURE

D5.1 THE VOTES ARE IN - WHAT DOES THAT MEAN FOR THE RENEWABLE INDUSTRY? Barbara Sands, Energy Expert, PA Consulting Group

D5.2 THE ARIZONA ENERGY ROADMAP: CREATING A PLAN FOR THE STATE'S ENERGY SECTOR

Michelle De Blasi, Attorney, Greenberg Traurig LLP; Christopher Davey, EnviroMission D5.3 CUTTING THROUGH THE STATIC: INSIGHTS FOR IMPLEMENTING EFFECTIVE PUBLIC INVOLVEMENT PROGRAMS FOR ELECTRIC INFRASTRUCTURE DEVELOPMENT

Diann Strom, Associate, Envirolssues: Diane Adams

D5.4 PRACTICING RISK-AWARE ELECTRICITY REGULATION

Dan Mullen, Senior Manager, Ceres; Ron Binz, Public Policy Consulting; Richard Sedano, Regulatory Assistance Project; Denise Furey, Regent Square Advisors

1PM - 3PM

Co-Chair Diann Strom

3:30PM - 5:30PM

D6. ENERGY & CLIMATE

D6.1 CLIMATE & THE PUBLIC TRUST DOCTRINE: PUBLICITY STUNT OR REAL THREAT? Allison Wood, Partner, Hunton & Williams LLP

D6.2 ACHIEVING SIGNIFICANT CARBON EMISSION REDUCTIONS FROM COGENERATION THROUGH NEW MARKET-BASED INCENTIVES

Paul MacGregor, Senior Vice President, Nexant; Tom Flynn

D6.3 ADOPT A CARBON TAX WITH REINVESTMENT & CONVERT NATURAL GAS TO **GASOLINE TO REDUCE EMISSIONS OVER 50% IN 20 YEARS**

Qionglin Dai, Graduate Research Associate, University of Denver; Stephen Sewalk

D6.4 ENERGY & ENVIRONMENT POLICY LEARNINGS FROM 'CASH FOR CLUNKERS' Shoshannah Lenski, Senior Associate, Strategy & Corporate Development, DTE Energy and Co-Chair **DTE Energy**

Session Sponsor

3

Shoshannah Lenski

RENEWABLE ENERGY | Track =

Wednesday | January 30

7:30AM - 9:30AM D7. MANAGING RISK & PROJECT FINANCE

Session Sponsor and Co-Chair

D7.1 ADDRESSING THE CHANGING OIL & GAS REGULATORY LANDSCAPE WITH CLOUD-BASED COMPLIANCE SOLUTIONS

Mickey Landkof, Senior Sales Engineer, Enviance

D7.2 LIFE AFTER SANDY- ENVIRONMENTAL EFFECTS

Bapanaiah Penugonda, Group Practice Director & Associate Professor, NYU College of Dentistry

D7.3 INVESTING IN THE GHG CONSTRAINED FINANCIAL MARKETS IN THE LIGHT OF THE FINANCIAL REFORM LEGISLATION

Nedia Miller, Principal, Miller CTA

D7.4 FINANCING RENEWABLE ENERGY PROJECTS: THE ROLE OF EX-IM BANK Craig O'Connor

CANCELED - D7.3 ENERGY PROJECTS- RISKS & MANAGEMENT

Lorne Sivertson, President, Sivertson & Associates Consulting Ltd.

Craig O'Connor, Director - Office of Renewable Energy, Export-Import Bank of the US **D7.5 PROJECT FINANCING FOR RENEWABLE ENERGY PROJECTS**

John Ravis, Principal, Scully Capital

Co-Chair

Bapanaiah Penugonda

E1.1 ONTARIO'S FIT

Peter Black, Director, Brant Renewable Energy

E1.2 RENEWABLE ENERGY CERTIFICATES: DEMYSTIFYING THE CURRENCY OF US & STATE **RENEWABLE ENERGY MARKETS**

Alex Pennock, Manager, Green-e Energy - Center for Resource Solutions

E1.3 HOW TO BUY & MARKET RENEWABLE ENERGY CREDITS & MEET STATE MANDATES IN NYISO, PJM & RGGI

Bert Spaeth, Senior Energy Engineer, RS Energy Solutions Inc. **E1.4 UTILIZING PURPA TO MARKET RENEWABLE ENERGY**

E1. RENEWABLE ENERGY MARKETS

Peter Richardson, Partner, Richardson & O'Leary, PLLC

Monday | January 28

1PM - 3PM

Co-Chairs Peter Black &

Bert Spaeth

3:30PM - 5:30PM

Co-Chair

Jin H. Jo

E2. DISTRIBUTED GENERATION

E2.1 THE ECONOMICS OF HYBRID RENEWABLE MICORGRIDS

Peter Lilienthal, CEO, HOMER Energy

E2.2 DISTRIBUTED GENERATION & THE INTELLIGENT GRID: CHALLENGES & PROMISES

Craig Lewis, Executive Director, Clean Coalition

E2.3 LESSONS LEARNED ADMINISTERING DISTRIBUTED GENERATION INCENTIVE PROGRAMS

Terry Clapham, Distributed Generation Manager, California Center for Sustainable Energy

E2.4 FEASIBILITY & CONSUMER BENEFITS OF MEETING THE RENEWABLE PORTFOLIO STANDARD FOR DISTRIBUTED GENERATION IN ILLINOIS

Jin H. Jo, Assistant Professor, Illinois State University; Jared Hayden & Sarah Noll

E3. RENEWABLE DEVELOPMENT ANALYSIS

E3.1 BENCHMARK SURVEY RESULTS: RENEWABLE ENERGY & CORPORATE ENERGY **EFFICIENCY**

20

Margery Moore, Dir. EHS Strategic Alliances, Bloomberg BNA **E3.2 VARYING IMPACTS OF RPS**

Marlys Palumbo, Partner, Van Ness Feldman

E3.3 DEVELOPMENT OF A RENEWABLE ENERGY MEASUREMENT SYSTEM

Zelda Roberts, Senior Specialist, National Advisory Council on Innovation

E3.4 SCREENING INSIDE THE FENCE RENEWABLE ENERGY OPPORTUNITIES - TURN YOUR LOAD INTO AN ASSET

Michael Zebell, Senior Consultant, ERM; John Clancy, Godfrey & Kahn

Tuesday | January 29

7:30AM - 9:30AM

Co-Chair

Margery Moore

Tuesday | January 29

10AM - 12PM

E4. RENEWABLE PROJECT DEVELOPMENT

Session Sponsor and Co-Chair

E4.1 NAVIGATING THE BLM ROW GRANT PROCESS FOR RENEWABLE ENERGY PROJECTS Robert Prohaska, Director, ESA

E4.2 TRES AMIGAS - CREATING A NATIONAL HUB FOR RENEWABLES

Laura Manz, Senior Vice President, Viridity Energy, on behalf of Tres Amigas

E4.3 ENVIRONMENTAL LITIGATION AGAINST RENEWABLE PROJECT DEVELOPMENT

Jim Wedeking, Staff Attorney, Sidley Austin LLP

Robert Prohaska E4.4 EFFECTIVE MESSAGING IN TODAY'S RENEWABLE ENERGY MARKET

RENEWABLE ENERGY

Carolyn Parrs, President & CEO, Mind Over Markets

E4.5 WHO'S THE BOSS? THE IMPACT OF THE 2012 ELECTION ON RENEWABLE ENERGY

James McTarnaghan, Partner, Duane Morris

E4.6 SYNCING SCHEDULES FOR RENEWABLE GENERATION & TRANSMISSION

INTERCONNECTION

Molly Cresto, Project Manager, CH2M HILL; Cary Roberts

1PM - 3PM

E5. NEW TECHNOLOGY

and Co-Chair

Session Sponsor E5.1 ADVANCED GROUND-BASED INSPECTION TECHNOLOGY FOR WIND TURBINE BLADES Stan Rosinski, Program Manager, Electric Power Research Institute; John Lindberg

E5.2 APPLYING CSP INNOVATIONS FOR CLEANER FOSSIL-FIRED POWER PLANTS IN THE US

John Robbins, Senior Director of Sales - Americas, AREVA Solar, Inc.

Stan Rosinski,

 $\hbox{\bf E5.3 SYNERGIZING ENHANCED GEOTHERMAL, WIND \& HYDROGEN FOR POWER GENERATION } \\$

Edward Hinders, Canyon West LLC; Patrick Kelly

E5.4 SPACE BASED SOLAR POWER AS A REPLACEMENT FOR FOSSIL FUELS

Keith Henson, Founder, L5 Society

E5.5 HEAT RECOVERY FROM MUNICIPAL SEWER PIPES

John Hood, Vice-President of Research & Development, Renewable Resource Recovery

Corp.; Les Lisk

E5.6 STATISTICAL OPTIMIZATION OF MEDIUM COMPONENTS AFFECTING FERMENTATIVE HYDROGEN PRODUCTION FROM CRUDE GLYCEROL BY THERMOTOLERANT KLEBSIELLA SP.

Teera Chookaew, Ph.D Candidate, Prince of Songkla University

3:30PM - 5:30PM

Session Sponsor E6. SOLAR & PV

and Co-Chair E6.1 PV REACHES GRID PARITY

Lane S. Garrett, P.E., C.E.M., CEO, ULG Energy Solutions, Inc. **E6.2 OUTLOOK FOR PV DEMAND IN A LOW INCENTIVE MARKET**

CELLS

Paula Mints, Director, Navigant

Boris Schubert

E6.3 SUNBEAMS FROM SPACE MIRRORS FEEDING SOLAR FARMS ON THE GROUND AT DUSK

Lewis Fraas, President, JX Crystals Inc.

Co-Chair

E6.4 GREENING THE GRID

Lane S. Garrett Troy Dalbey, North American Manager, Upsolar Group

E6.5 BEST PRACTICES FROM SCE'S SOLAR PV PROGRAM

Mark Nelson, Director of Generation Planning & Strategy, Southern California Edison

E6.6 A NEW VISION FOR CONCENTRATED SOLAR Zev Rosenzweig, CEO & President, AORA Solar Ltd

E6.7 NATIONAL UTILITY RATES DATABASE

David Loomis, Professor of Economics, Illinois State University **E6.8 HOW TO SURVIVE THE MULTI-FACETED U.S. SOLAR MARKET**

Boris Schubert, CEO, Q.CELLS North America **OTHER - SOLAR OBSERVING DEMONSTRATION** Wednesday | January 30

E7. PROJECT DEVELOPMENT/ IP

E7.1 PATENT PROTECTION BEST PRACTICES IN THE WAKE OF THE AMERICA INVENTS ACT Lee Huddleston, Partner, Osha Liana, LLP

E7.2 PATENT A PROCESS OR KEEP IT A TRADE SECRET? HOW TO DECIDE AFTER AIA'S EXPANSION OF THE PRIOR USER RIGHTS DEFENSE

Judith Kim, Director, Sterne, Kessler, Goldstein & Fox: Katrina P. Quach

E7.3 CREATION OF A JOINT VENTURE: THE PRELIMINARY LETTER OF INTENT

Michael Manuel, Principal, Goldberg Kohn Ltd.

E7.4 EQUATOR PRINCIPLE COMPLIANCE DEMONSTRATION FOR A PROJECT IN THE US?

William Stark, Senior Consultant, SAIC Energy, Environment & Infrastructure

E7.5 VISUALIZING CHANGE: VISUAL ASSESSMENT TOOLS FOR RENEWABLE ENERGY PROJECTS

Eric Crow, Visualization Specialist, Tetra Tech, Inc.

E7.6 CAPTURING VALUE THROUGH INTELLECTUAL ASSET MANAGEMENT

Thomas McGurk, President & Mana Member, Advanced Biofuel Solutions/McGurk Intellectual Property Advisors

10AM - 12PM

7:30AM - 9:30AM

Co-Chair

William Stark

E8. BATTERIES, STORAGE & RE DEVELOPMENT

E8.1 ELECTROVAYA'S UTILITY ENERGY STORAGE SOLUTIONS USING LITHIUM ION SUPERPOLYMER BATTERY TECHNOLOGY

Raishekar DasGupta, Vice President - Energy Storage, Electrovaya

E8.2 CHARGING, TESTING & MONITORING: EV BATTERY CHARGING SYSTEMS & **TECHNOLOGY**

Don Karner, President of ECOtality North America, ECOtality

E8.3 FEASIBILITY OF ENERGY STORAGE ON ITALIAN POWER EXCHANGES ANCILLARY MARKET

Dr. Francesco Vallone, President & CEO, Cogenpower

E8.4 MAPS: MAGLEV POWER STORAGE SYSTEM

Robert Coullahan, President, Readiness Resource Group Incorporated: James Powell, Gordon Danby & James Jordan, Maglev 2000; F.H. Griffis New York Polytechnic University

E8.5 RENEWABLE POWER SOURCE BASED ON LOW ENERGY NUCLEAR REACTIONS George Miley, Professor Emeritus - University of Illinois; Xiaoling Yang, Kyu-Jung Kim, Tapan

Patel, Erik Ziehm, James Madrigal, Bert Stunkard **E8.6 UTILITY SCALE RENEWABLE ENERGY PROJECT COMPLIANCE**

Kevin Wedman, Vice President, Bureau Veritas

Co-Chair Francesco Vallone

Co-Chair Don Karner

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1PM - 3PM

F1. ENERGY CYBERSECURITY F1.1 A PARADIGM SHIFT IS REQUIRED IF THE U.S. IS GOING TO HAVE A MORE SECURE SMART GRID

Session Sponsor and Co-Chair

Eamonn McCormick, CEO, Tri Modal: Brian Lenane

wyle

Scott Sanders

F1.2 CONDUCTING A RISK BASED METHODOLOGY FOR COMPLIANCE & CYBER SECURITY **REQUIREMENTS**

Rahul Chhabra, Cyber Security & Compliance Consultant, Burns & McDonnell Engineering; Jerome Farauharson, Michael Welch

F1.3 EFFECTIVE REGULATORY APPROACHES TO SMART GRID CYBER SECURITY Terry Jarrett, Commissioner, Missouri Public Service Commission

OPERATIONS & MANAGEMENT

F1.4 CYBER THREATS TO INDUSTRIAL CONTROL SYSTEMS: FACT OR FICTION
Neil Hershfield , ICS-CERT Deputy Director, Department of Homeland Security

F1.5 SECURITY OPERATIONS CENTER: AN ADAPTIVE APPROACH

Jeff Hawks, Director, Information Systems, Wyle Laboratories; Scott Sanders

F1.6 DESIGNING AN EFFECTIVE SECURITY PROGRAM

Joachim Gloschat, Physical Security Specialist, Security Management Solutions, LLC

3:30PM - 5:30PM

Co-Chair Robert Van Durme

F2. COMPLIANCE TECHNOLOGIES & STRATEGIES

F2.1 LOWER RISK & REDUCED COST - ESP TO PJFF CONVERSION Mark Aldrich, Regional Executive, Hamon

F2.2 RE-ENGINEERING COAL-FIRED GENERATING PLANTSKeith Moore, President, Castle Light Energy Corp

F2.3 STRATEGIES FOR PATENTING "GREEN" TECHNOLOGIES Erica Lowthers, Patent Agent, Sim. IP Practice

F2.4 ADVANCES IN FUEL LEAN GAS REBURN

Charles Lockert, President, Breen Energy Solutions

F2.5 WET FGD NOZZLE TECHNOLOGY - CAN A BETTER NOZZLE SELECTION HELP IMPROVE SCRUBBER PERFORMANCE?
Robert Van Durme, P.E., Senior Account Manager, Lechler Inc.

F2.6 AIR PERMITTING OF IPL'S EAGLE VALLEY PROPOSED REPLACEMENT COMBINED CYCLE

Richard Benedict, Director of Project Development, Indianapolis Power & Light Co. (IPL); Tom Rarick & Robert Fraser, Environmental Resources Management

F2.7 ON PREVENTING SERIOUS INJURIES & FATALITIES

James Grant, Vice President, BST

F4. EHS & EMIS

F4.1 ENSURING REGULATORY COMPLIANCE IN A DECENTRALIZED ORGANIZATION

Richard Waterman, Vice President, EA Engineering, Science, & Technology, Inc.; Kathy French, LS Power Development, LLC

F4.2 EMIS DESIGN & IMPLEMENTATION PLANNING FOR ONE OF THE LARGEST US STATE-**OWNED UTILITIES**

Rick Mock, Principal, E2ManageTech; Brian Holmes, Santee Cooper

F4.3 EHS GLOBAL AUDITING TRENDS

Margery Moore, Dir. EHS Strategic Alliances, Bloomberg BNA

F4.4 LEVERAGING MODERN TECHNOLOGY FOR EMIS SUCCESS

James Jenson, Vice President of Products & Services, Perillon Software

F4.5 THE SAFETY LEADERS BRAIN-HOW SAFETY LEADERS ARE WIRED DIFFERENTLY & WHY THIS MAKES ALL THE DIFFERENCE TO BUSINESS

Autumn Krauss, Chief Scientist, Sentis USA; Elizabeth Prazeres & Michelle Brown

F4.6 MOVING FROM EHS COMPLIANCE TO PERFORMANCE

David Hoffman, Sustainable Supply Chain SME, Enablon

10AM - 12PM

Session Sponsor

and Co-Chair

Richard Waterman

Co-Chair David Hoffman

1PM - 3PM

F5. EHS & RISK MANAGEMENT

F5.1 OIL SPILL RISK EVALUATION FOR SUBSTATION OIL-FILLED EQUIPMENT

Kris Macoskey, Principal, Civil & Environmental Consultants, Inc.; Emory McLean

F5.2 RISK MANAGEMENT & ITS IMPACT ON ENVIRONMENTAL HEALTH & SAFETY

Tom Barlow, Channel Manager, EtQ

F5.3 ENVIRONMENTAL GREEN SHOP AWARD PROGRAM

Robert Trapani, Environmental Engineer, State of Arizona Department of Transportation

F5.4 IMPLEMENTING ISO 31000 INTO EHS

Johannes Swanepoel, Product Marketing Manager, Enablon

F5.5 REDUCING HUMAN HEALTH RISKS FROM CARBON DIOXIDE VENTING ASSOCIATED

WITH CARBON CAPTURE OPERATIONS

John Shrock, Senior Scientist, ECT, Inc.

F5.6 ACHIEVING A WORLD CLASS SAFETY CULTURE

Nicholas Krump, Senior Consultant, Culture Change Consultants

Session Sponsor and Co-Chair



Johannes Swanepoel &

David Hoffman

Tuesday | January 29

7:30AM - 9:30AM F3. POWER PLANT & BOILER OPTIMIZATION

Co-Chair Tim Fuller

F3.1 USE OF CHLORINE DIOXIDE IN RO SYSTEMS FOR TREATMENT OF BOILER FEED WATER

Bob Mueller, Director - Process Chemicals, Airgas Specialty Gases

F3.2 IN FURNACE LASER-BASED MEASUREMENTS SYSTEM TO OPTIMIZE COAL COMBUSTION

ON 600MW COAL-FIRED BOILER

Scott Affelt, Vice President, Zolo Technologies

F3.3 IMPROVED HEAT TRANSFER MANAGEMENT THROUGH SOOTBLOWING OPTIMIZATION ON A CYCLONE FIRED UNIT

Tim Cartmel, Babcock & Wilcox PGG; Jeremy Brown

F3.4 COAL FLOW OPTIMIZATION WITH B&W PGG'S EVENFLOW SYSTEM

Tim Fuller, Technology Manager, Babcock & Wilcox Power Generation Group; Bijan Hosseininejad & Eric Fuller, B&W PGG; Alan Murkerson & Joe Krajna, Lakeland Electric; Dr. Harun Biligren, Lehigh University

F3.5 USE OF OXYGEN ENHANCED COMBUSTION TO ENHANCE BOILER OPERATIONS Larry Bool; Sr. Development Professional, Praxair, Inc; Stefan Laux, David Thompson & Sho

Kobayashi

F3.6 COMBUSTION OPTIMIZATION FOR DECREASED EMISSIONS & IMPROVED EFFICIENCY David Earley, President, Combustion Technologies Corporation; Joe Estrada, Duke Energy

Preliminary Program (1/9) ~ Subject to Change

F6. COAL ASH / CCP

F6.1 COAL ASH MANAGEMENT -- THE CHANGING LEGAL LANDSCAPE Jeffrey N. Martin, Partner, Hunton & Williams LLP

F6.2 COAL ASH STORAGE & DISPOSAL - LITIGATION & REGULATORY DEVELOPMENTS

Nash Long, Partner, Winston & Strawn, LLP; May Wall

F6.3 UPDATE ON ASTM COAL ASH REUSE STANDARDS A. Gwen Eklund, Director - Power Generation Services, TRC

F6.4 BEYOND ASH PONDS

Thomas Higgins, Global Technology Leader - Power Water & Process, CH2M HILL; Dennis Fink & Dana French

F6.5 COAL COMBUSTION RESIDUALS CASE STUDY: GHENT GENERATING STATION

Stephen Henson, Process Engineer, Kiewit Power; Raymond Eric Zbacnik, Kiewit Power; Scott Straight, LG&E and KU Energy

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Jeffrey N. Martin



Co-Chair Roger Sedio

Art Diem

Monday | January 28

7:30AM - 9:30AM F7. NATURAL RESOURCE MGMT. - HCP

and Co-Chair

William

Coleman

Wednesday | January 30

Session Sponsor F8.1 THE BUSINESS CASE FOR AN OPERATIONS & MAINTENANCE HABITAT CONSERVATION

William Coleman, Supervisor, Habitat Conservation Plan Program, Pacific Gas & Electric F8.2 PROGRAMATIC PERMITTING FOR VEGETATION MANAGEMENT

Michael Warner, President - Project Manager, Transcon Environmental, Inc.

F8.3 PROACTIVELY PINPOINTING HAZARDOUS VEGETATION ON THE FRINGES OF POWER LINE RIGHT-OF-WAY CORRIDORS USING LIDAR & IMAGERY DATA

Alex McCracken, Product Consultant, Exelis

F8.4 AN INTEGRATED ECOLOGY & DESIGN APPROACH TO WETLAND RESTORATION Nick Buhbe, Senior Ecologist, Great Ecology

F8.5 RESILIENCE & ADAPTABILITY: WEIGHING THE RISKS & BENEFITS OF FISH CONSUMPTION **IN RURAL ALASKA**

Lawrence Duffy, Professor of Chemistry & Biochemistry, University of Alaska Fairbanks; Philip Loring, Kriya Dunlap, Arleigh Reynolds & Ralston Purina

10AM - 12PM

Session Sponsor and Co-Chair

Gill Eapen

BLACK & VEATCH

F8. OPERATIONS & MANAGEMENT

F8.1 TRUE GRIT: 7 CORE PRACTICES OF RESILIENT LEADERS

Autumn Krauss, Chief Scientist, Sentis USA: Michelle Brown

F8.2 OUTAGE MANAGEMENT 101 - A GUIDE TO THE EFFECTIVE PLANNING, EXECUTION & **CLOSE OUT OF GENERATING PLANT MAINTENANCE OUTAGES**

Phil Webster, Project Manager, Black & Veatch Corporation; Stephen Nelson, Dominic DiBari & Mike Dammann

F8.3 MILL PRE-FIRE DETECTION SYSTEMS

Richard Hovan, Principal Consultant, EPA Systems, LLC

F8.4 MANAGING ENVIRONMENTAL COMPLIANCE AND RESOURCE RECOVERY DURING TRANSMISSION & DISTRIBUTION SYSTEM CONSTRUCTION

Robert Ferrell, Sr. Mgr - Business Development, URS Corporation; Lauren Andersen, Ray Hinkle

F8.5 VALUE OF DESIGN FLEXIBILITY

Phil Webster Gill Eapen, CFO, VEEDIMS

F8.6 ENERGY BENCHMARKING IN NYC

David Ahrens, Managing Director, Energy Spectrum

F8.7 PLANNING THE POWER PRODUCTION: SHORT-TERM FORECASTING OF ITALIAN ELECTRICITY MARKET & COMBINATORIAL OPTIMIZATION

llaria Cannata, Strategic Development Director, Cogenpower; Dr. Francesco Vallone

Laboratory

G1. CARBON FOOTPRINT

Dejan Ristic, Pressure/Energy Systems Engineer-Group Leader, Argonne National

G1.2 IS WOOD BIOENERGY CARBON NEUTRAL?

Roger Sedjo, Senior Fellow, Resources for the Future; Xiaohui Tian, Ohio State University G1.3 USING EGRID DATA FOR CARBON FOOTPRINTING GRID SUPPLIED ELECTRICITY

Art Diem, Environmental Engineer, USEPA; Cristina Quiroz, TranSystems

G1.1 NATURAL VS ANTHROPOGENIC GHG EFFECT: A COMPENDIUM

G1.4 "MASS PRODUCED" PRODUCT CARBON FOOTPRINTS TO FACILITATE BUSINESS **DECICISONS & LCA EDUCATION IN LARGE COMPANIES**

Christoph Meinrenken, Associate Research Scientist, Columbia University, Klaus S. Lackner & Anthony N. Garvan

G1.5 CARBON FOOTPRINT OF A PRESIDENTIAL ELECTION

Art Samberg, Senior Consultant, Golder Associates Inc.

G2. TAILORING RULE/NSR/GHG-BACT

G2.1 NSR APPLICABILITY UNDER TAILORING RULE

Angela Morrison, Attorney, Hopping Green & Sams, PA; Max Lee, Koogler & Associates, Inc.

G2.2 NSR APPLICABILITY UNDER TAILORING RULE, PART II

Max Lee Ph.D., P.E., President, Koogler and Associates, Inc.; Angela Morrison, Hopping Green & Sams

G2.3 HURDLES OF IMPLEMENTING THE TAILORING RULE AT LANDFILLS

David Thorley, Director of Air, Waste Management; Angela Morrison, Hopping Green & Sams, P.A.

G2.4 BEST AVAILABLE CONTROL TECHNOLOGY FOR GREENHOUSE GASES

Deanne Dutton Hughes, Principal, Cardinal Engineering

G2.5 IMPLICATIONS OF THE EGU GHG NSPS ON GHG BACT DETERMINATIONS: WHAT DOES IT ALL MEAN?

Kate Graf, Senior Consultant, Geosyntec Consultants

G2.6 GHG BACT AS CO2 INJECTION FOR EOR

Mary Ellen Ternes, Attorney, McAfee & Taft

G2.7 CHANGES TO NSPS REGULATIONS ON GHG EMISSIONS & ITS IMPACT ON ELECTRICITY **GENERATING UNITS**

Jagatheesan (Jack) Senthilvel, Project Manager, WorleyParsons; Joseph Takats

3:30PM - 5:30PM

Session Sponsor

and Co-Chair

Geosyntec^p consultants

Kate Graf

Co-Chair

Angela Morrison

7:30AM - 9:30AM

Co-Chairs

David Jordan

Salvi Asefi-Najafabady

Tuesday | January 29

G3. PLANNING & GHG REPORTING

G3.1 WISCONSIN'S APPROACH TO QUANTIFYING EMISSION IMPACTS OF CLEAN ENERGY INITIATIVES (FOCUS ON ENERGY)

David Sumi, Executive Director, The Cadmus Group

G3.2 COMPILATION & ANALYSIS OF NEW MEXICO'S GHG EMISSIONS INVENTORY DATA

Michael Schneider, Environmental Scientist, St. of NM Environment Department Air Quality

G3.3 EXPERIENCES WITH GHG PERMITTING UNDER NSR

David Jordan, Partner, ERM

G3.4 APPLICATION OF HESTIA METHODS TO THE CITY OF PHOENIX, USA

Igor Razlivanov, Postdoc, ASU; K. Gurney & Y. Song, ASU; Y. Zhou, Joint Global Change Research Institute, College Park

G3.5 HIGH-RESOLUTION GLOBAL FOSSIL FUEL CO2 EMISSION INVENTORY FOR 1992 TO 2010 USING INTEGRATED IN-SITU & REMOTELY SENSED DATA IN A FOSSIL FUEL DATA ASSIMILATION SYSTEM

Salvi Asefi-Najafabady, Postdoctoral Scholar, ASU; P. Rayner, J. Huang, Y. Song, K. Gurney G3.6 VULCAN: NATIONAL SCALE HIGH RESOLUTION QUANTIFICATION OF FOSSIL FUEL

Kevin Gurney, Associate Professor, ASU; Y. Zhou, DOE; D. Mendoza, Purdue University; V. Chandrasekaran & I. Razlivanov, ASU 26

Wednesday | January 30

Tuesday | January 29

10AM - 12PM

G4. CORPORATE STRATEGIES & RISK MGMT

G4.1 CREATING GREENHOUSE GAS EMISSIONS OFFSETS BY REDUCING NITROGEN FERTILIZER Session Sponsor USE IN U.S. AGRICULTURAL CROP PRODUCTION

and Co-Chair Mike Miller, Director - Environment, EPRI; Adam Diamant, EPRI; Neville Millar, Ph.D. & G. Philip Robertson, Ph.D., Michigan State University (MSU).

G4.2 SUMMARY OF RECENT OBSERVATIONAL STUDIES OF THE IMPACTS OF CLIMATE CHANGE & IMPLICATIONS FOR THE ELECTRIC UTILITY INDUSTRY

Mike Miller Howard Balentine Technical Leader - Air Quality, AECOM; Gregory Derevianko

G4.3 CARBON TAX OR "CAP-&-TRADE" SYSTEMS & ITS COST & PRICE EFFECT ON U.S. **REFINING & MARKETING**

Bill Smalling, Attorney at Law, C. William Smalling, PLLC Co-Chair

G4.4 HESS CORPORATION'S NEXT GENERATION CLIMATE CHANGE STRATEGY Eric Chung

Michal Pelzig, Senior Manager Reporting, Hess Corporation

G4.5 IS CONVERTING COAL TO GAS THE RIGHT MOVE? USING A DRIVER-BASED DECISION

APPROACH IN THE FACE OF UNCERTANTY

Eric Chung, Senior Manager - Power & Utilities Advisory Services, Ernst & Young

1PM - 3PM

Co-Chair

Andrew Van Horn

Co-Chair

G5.1 KICK-OFF FOR CALIFORNIA'S AB 32: HOW WILL THE MARKET WORK?

Andrew Van Horn, Managina Director, Van Horn Consultina

G5. CALIFORNIA CAP-AND-TRADE

G5.2 CARBON PROJECT TYPES TARGETED FOR CALIFORNIA COMPLIANCE MARKET

PROTOCOLS

Dick Kempka, Vice President Business Development, The Climate Trust

G5.3 THE ROLE OF COMPLEMENTARY MEASURES IN DETERMINING THE STRINGENCY OF THE

Steve Fine AB32 CAP

Steve Fine, Vice President, ICF International

G5.4 MARKET FORECAST & COMPLIANCE STRATEGIES FOR A COURT-CHALLENGED AB 32

William Flederbach, President, ClimeCo Corporation

G5.5 CARBON CREDIT CAPITAL - DECISION SUPPORT TOOL FOR COST EFFECTIVE

COMPLIANCE TO AB-32 CAP-AND-TRADE

Rena Gelb, Carbon Credit Capital, LLC; Luca Nencetti

3:30PM - 5:30PM

NRDC

David Doniaer

Session Sponsors G6. GHG STRATEGIES - POST KYOTO

and Co-Chairs G6.1 CUTTING POWER PLANT CARBON POLLUTION UNDER THE CLEAN AIR ACT

David Doniger, Policy Director - Climate & Clean Air Program, Natural Resources Defense

Council; Daniel Lashof & Starla Yeh

G6.2 HOW WILL THE CARBON TAX IMPACT UTILITIES?

William Flederbach, President, ClimeCo Corporation

G6.3 THE FUTURE OF INTERNATIONAL CARBON OFFSETS - OPERATIONAL EXPERIENCE & NEW

MARKET DESIGNS Olof Bystrom

Olof Bystrom Ph.D., Team Lead - Project Assessments, UNFCCC

G6.4 THE EMERGING POST-KYOTO CLIMATE POLICY FRAMEWORK AS EXPLAINED THROUGH **NEW ENVIRO-ECONOMIC METRICS**

Vincent Buscarello, Research Associate, University of Denver; Stephen Sewalk

G6.5 NEW ESTIMATES OF GLOBAL OFFSET SUPPLY: ACCOUNTING FOR MARKET REALITIES

Steven Rose, Sr. Research Economist, EPRI; R. Beach & J Petrusa, RTI International; K. Calvin, J. Edmonds & M. Wise, PNNL; B. McCarl, Texas A&M U.; B. Sohngen, Ohio St. U.; R.

Youngman & R. Rosenzweig, Natsource; A. Diamant & F. de la Chesnaye, EPRI

G7. CCS: CARBON CAPTURE & STORAGE

G7.1 CARBON CAPTURE UTILIZATION & STORAGE (CCUS) KNOWLEDGE BASED TOOLS FROM THE DOE/NETL CARBON STORAGE

Brian Dressel, Project Manager, DOE/National Energy Technology Laboratory; John Litynski G7.2 ENZYMATIC TECHNOLOGY FOR LOW-COST CARBON DIOXIDE CAPTURE

Jonathan Carley, Vice-President - Business Development, CO2 Solutions Inc.; Dr. Luan Nguyen, Codexis, Inc.; Dr. Sylvie Fradette, CO2 Solution Technologies Inc.; Dr. Geert Versteeg, Procede Group BV

G7.3 A CASE STUDY OF PERFORMANCE, COST & FEASIBILITY OF A CO2 CAPTURE-READY **COAL POWER PLANT**

Eric Grol, Energy Analyst, U.S. Department of Energy/National Energy Technology Laboratory; Steve Herron & Paul Myles, Worley Parsons

G7.4 FUNDING MECHANISMS ADDRESSING THE LONG-TERM LIABILITY OF CCS ACTIVITIES Terry Unger, Associate, ICF International; Kerry Schlichting

G7.5 EVALUATION OF ADVANCED SOLVENTS & OTHER COMPETING TECHNOLOGIES FOR CO2 CAPTURE FROM FOSSIL FUEL-FIRED SYSTEMS

Brandon Pavlish, Research Manager, Energy & Environmental Research Center University of North Dakota, Nathan Fiala & John Kay

G7.6 NEUMANN SYSTEMS GROUP'S ADVANCED CARBON CAPTURE SYSTEM FOR COAL-**FIRED POWER PLANTS**

Dr. Andrew Awtry, Principal Investigator; Jacob Kershman, Chemist, Neumann Systems; Wally Westlake, Andrew Awtry & Robert Fredell

7:30AM - 9:30AM

Session Sponsor and Co-Chair



Brian Dressel

Co-Chair Jonathan Carley

10AM - 12PM

Co-Chair

Julian Isham

Co-Chair

Martin Dillon

G8. CCS II

G8.1 POST-COMBUSTION CO2 CAPTURE & THE RELATIVE BENEFITS OF SOLID SORBENTS

Martin Dillon, Project Manager, ADA-ES, Inc.; Holly Krutka, Travis Starns & Sharon Sjostrom G8.2 500 MTPD COAL-FIRED CO2 CAPTURE PROJECT UPDATE, INCLUDING MHI AMINE

EMISSION REDUCTION TECHNOLOGY & HEAT INTEGRATION SYSTEM

Tiffany Wu, Process Engineer, Steven Holton, Dir. Business Development, Mitsubishi Heavy Industries America, Inc.; Steven Holton, Tatsuya Tsujiuchi, Takahito Yonekawa, & Paul Wood, MHIA; Takuya Hirata, Hiromitsu

G8.3 CARBON CAPTURE & STORAGE AT NATURAL GAS COMBINED CYCLE POWER PLANTS IN CALIFORNIA

Julian Isham, Geology Manager, Shaw E&I

G8.4 THE PLAINS CO2 REDUCTION (PCOR) PARTNERSHIP: A REGIONAL CARBON SEQUESTRATION PARTNERSHIP IN THE INTERIOR PLAINS OF NORTH AMERICA

Wesley Peck, Research Manager, Energy & Environmental Research Center; E. Steadman, J. Harju, C. Gorecki, L. Botnen, D. Daly, M. Jensen, S. Smith, J. Sorensen, J. Hamling, R. Klapperich & K. Anagnost

G8.5 EVALUATION OF CO2 CAPTURE FROM EXISTING COAL FIRED PLANTS BY HYBRID SORPTION USING SOLID SORBENTS (CACHYS™)

Nicholas Lentz, Associate Director for Energy Technology Applications, University of North Dakotal: Charles K. Thumbi, Daniel A. Laudal & Steven A. Benson, UND: Srivats Srinivasachar, Envergex LLC

G8.6 HITACHI'S CARBON DIOXIDE SCRUBBING TECHNOLOGY WITH H3-1 ABSORBENT FOR **COAL FIRED POWER PLANTS**

Eiji Miyamoto, Engineering Researcher, Babcock-Hitachi K.K.; Koichi Yokoyama, Shigehito Takamoto, Hirofumi Kikkawa, Toshio Katsube, Jun Shimamura (Babcock-Hitachi K.K.), Song Wu, Sandhya Eswaran (Hitachi Power Systems America, Ltd.)

CANCELED - G8.7 INTEGRATION OF SHALE GAS PRODUCTION WITH CCS

Jinsheng Wang, Research Scientist, CanmetENERGY, Natural Resources Canada; David Rvan, Edward J. Anthony, Andrew Wiaston

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Monday | January 28 1PM - 3PM H1. ALGAE H1.1 WATER SUSTAINABILITY THROUGH THE USE OF AN ALGAE-BASED ADVANCED Co-Chair **BIOLOGICAL TREATMENT** Mark Edwards Rick Johnson, Director, Business Development, AlgEvolve H1.2 UTILIZATION OF LIQUID EFFLUENT FROM AN ANAEROBIC DIGESTER (DLE) AS A NUTRIENT **SOURCE FOR ALGAE GROWTH** Greg Karr, Program Manager, MRIGlobal; Jennifer Jackman, Scott Shore & Kristine Krebs Co-Chair H1.3 ENERGY & WATER RESOURCE EFFICIENT PRODUCTION OF MICROALGAE LIPIDS Rick Johnson Kelsey Price, Student Researcher, University of New Hampshire; Ihab Faraa H1.4 ALGAE GROWTH IN PHOTOBIOREACTORS USING A REMOVABLE JACKET OF COLORED Daniel Eltringham, Student Researcher, University of New Hampshire; Marian Elmoraghy & Ihab Farag H1.5 CLIMATE INDEPENDENT FOOD PRODUCTION WITH ALGAE Mark Edwards, Professor, ASU

3:30PM - 5:30PM

Co-Chair Girish Srinivas

Co-Chair

John Kline

H2. BIOFUELS / ETHANOL / BIODIESEL

H2.1 EVALUATION OF AS-RECEIVED & PRETREATED NORTHEAST BIOMASS FOR PRODUCTION OF BIOFUELS & VALUE-ADDED PRODUCTS

Nii Ofei Mante, Research Associate - Thermochemical Conversion Research, Brookhaven National Laboratory; Thomas E. Amidon & Timothy A. Volk (1) & Suresh P. Babu (2)

H2.2 CATALYTIC CONVERSION OF SYNTHESIS GAS INTO FUEL ETHANOL

Girish Srinivas, Principal Engineer, TDA Research, Inc.; Michael V. Mundschau, Erik W. Andersen, Steven D. Dietz, Brady J. Clapsaddle & Steven C. Gebhard

H 2.3 CARBON CAPTURE FROM CEMENT FLUE GAS & CONVERSION OF CARBON TO NEW

VALUE IN BIOPLASTICS

John Kline, Principal, John Kline Consulting; Brian Sefton & Shannon LaGuardia, Oakbio Inc. **H2.4 POST ELECTION POLITICS & CELLULOSIC ETHANOL DEVELOPMENT**

Christopher Standlee, Executive Vice President, Abengog Bioenergy

H2.5 STATISTICAL OPTIMIZATION OF ENZYMATIC HYDROLYSIS OF OIL PALM TRUNK FOR PRODUCTION OF GLUCOSE, XYLOSE & ETHANOL

Pongsak Noparat, Student, Department of Industrial Biotechnology, Faculty of Agro-Industry, Prince of Songkla University; Sompong O-Thong, Poonsuk Prasertsan

H2.6 UTILIZATION OF AN AIR BLANKET TO KEEP BIODIESEL DRY

Scott Grossbauer, Global Sales Manager, Donaldson Company

Tuesday | January 29

7:30AM - 9:30AM H3. BIOMASS/ COFIRING IN POWER PLANTS

Co-Chairs Jeff Wright & S. Kent

Hoekman

H3.1 EUCALYPTUS PLANTATIONS IN FLORIDA USA: ECONOMIC ANALYSIS OF BIO-ENERGY & **CARBON SEQUESTRATION POTENTIAL**

Jeff Wright, Manager, Hardwood Development, ArborGen Inc

H3.2 INNOVATIONS IN FLUIDIZED BED TECHNOLOGY: IMPROVING EFFICIENCY WITH INBED

HEAT TRANSFER & STAGED GASIFICATION

Patrick Travis, Business Development Manager, Outotec Energy Products

H3.3 PRODUCTION & PROPERTIES OF SOLID FUELS FROM HYDROTHERMAL CARBONIZATION

(HTC) OF LIGNO-CELLULOSIC BIOMASS

S. Kent Hoekman, Research Professor, Desert Research Institute; Larry Felix, Gas Technology

Institute; Grady Coble, Parker Towing Company

H3.4 ZERO WASTE POWER PLANTS USING PLASMA GASIFICATION TECHNOLOGY

Louis Circeo, Chief Scientist, Applied Plasma Arc Technologies, LLC

H3.5 GIANT KING GRASS AS AN ENERGY CROP IN THE UNITED STATES

Carl Kukkonen, CEO, VIASPACE Inc.

H4. BIO & WASTE ENERGY

10AM - 12PM

Tuesday | January 29

H4.1 PERMITTING A NEW & INNOVATIVE WASTE CONVERSION TECHNOLOGY IN NEW **JERSEY**

Alan Sawyer, Managing Director, NRG Energy, Inc.; Greg Seher, Atlantic County Utilities Authority; Marcus Scrimgeour & Greg McCarran, SCS Engineers, PC

H4.2 BRINGING BIOGAS TECHNOLOGY TO ORGANIC WASTE MARKETS IN THE US Emily Viau, CEO, Bioenergy Frontiers, Inc.

H4.3 PARTNERING WITH COAL: PROGRESS, OPPORTUNITIES & CHALLENGES WITH MSW-**DERIVED FUELS**

Mark Hall, Executive Vice President, Lakeside Energy/Dongara; Melissa Hillman, Trinity Consultants

H4.4 SUSTAINABILITY IN AN URBAN ENVIRONMENT THROUGH ANAEROBIC DIGESTION

John McDowell, Project Manager, Eisenmann Corporation

H4.5 COOL PLASMA GASIFICATION

Kris Skrinak, President, adaptive ARC, Inc.

1PM - 3PM

Co-Chairs

Chris Zygarlicke

Harrison Clay

Co-Chair

Emily Viau

Co-Chair

Alan Sawyer

H5. BIOGAS & MSW

H5.1 BIOMETHANE VEHICLE FUEL

Harrison Clay, President, Clean Energy Renewable Fuels

H5.2 BIOCHAR. A SOLUTION FOR SOLID WASTE MANAGEMENT

Ricardo Aguirre, Director of Stormwater Engineering, CVL Consultants

H5.3 DISTRIBUTED-SCALE BIOMASS GASIFICATION POWER

Chris Zygarlicke, Deputy Associate Director for Research, Energy & Environmental Research Center

H5.4 BIOCHAR UTILIZATION IN AN INTEGRATED SYSTEM FOR BIOENERGY CROP PRODUCTION & CARBON SEQUESTRATION

Greg Karr, Program Manager, MRIGlobal; Andrew Miller, Ryan Krause & Donnie Bowman, MRIGlobal: Nathan Nelson & Arthur Fink, Kansas State University

H5.5 COOL PLASMA GASIFICATION

Kris Skrinak, President, adaptive ARC, Inc.

H5.6 MANAGING YOUR WASTE VENDORS TO AVOID CERCLA LIAIBLITY. EMBARRASSMENT (OR BOTH!)

Jeffrey Sacre, Executive Director, CHWMEG, Inc.

3:30PM - 5:30PM Co-Chairs

Surendra Saxena

&

Brian Stuver

H6. BIOMASS - MSW/ LFG

H6.1 ENERGY FROM MUNICIPAL SOILD WASTE WITH ZERO CARBON EMISSION Surendra Saxena, Professor, CleanHydro-Innovision

H6.2 CASE STUDIES DEMONSTRATING VIABLE LFG BENEFICIAL USE PROJECTS AT SMALL

LANDFILLS

Brian Stuver, Client Service Manager, Joyce Engineering

H6.3 LANDFILL GAS-TO-ENERGY: SOLUTION OR PROBLEM?

Jim Stewart, Sierra Club California Energy-Climate Committee; Mike Ewall, Energy Justice Network

H6.4 BIO4ENERGY - A BIOREFINERY INITIATIVE

Stellan Marklund, Professor, Umeå University

11. ENERGY SUSTAINABILITY

11.1 RENEWABLE ENERGY - SHOW ME THE GREEN!

Greg Odegard, Consultant, GO Environmental

Tuesday | January 29

14. 316B

14.1 SELECTION OF BEST TECHNOLOGY AVAILABLE FOR 316(B) COMPLIANCE David Bailey, Sr. Project Manager, EPRI

14.2 EPA'S PROPOSED EFFLUENT GUIDELINES & 316(B) RULES - OPERATING IN THE MIDST OF UNCERTAINTY

Averil Edwards, Associate, Winston & Strawn LLP

14.3 A NEW LOOK AT THE 316(B) COOLING WATER INTAKE RULE - NOW WHAT?

Manitia Moultrie, U. S. Power Sector Leader, Golder Associates

14.4 WHAT DO EPA'S NEW 316(B) COOLING WATER INTAKE STRUCTURE REGULATIONS MEAN TO EXISTING POWER GENERATION

Stephen Petron, Global Ecosystem Services Director, CH2M HILL; Christopher Wiggins

14.5 STRATEGIES FOR COMPLIANCE WITH UPCOMING 316(B) REQUIREMENTS Erik Heinen, Sr. Scientist, Environmental Consulting & Technology; Mark Gerath & Steve Cibik

14.6 COMPARISON OF ENTRAINMENT AT ADJACENT INTAKES WITH & WITHOUT LARGE SLOT-WIDTH WEDGE-WIRE SCREENS: A CASE FOR WEDGE-WIRE SCREENS TO REDUCE ENTRAINMENT

Robert Blye, Vice President, Normandeau Associates, Inc; Paul L Harmon & Brian Lees, Normandeau; Robert Matty, Exelon Power; Jason Kinnel, Veritas Economic Consulting Session Sponsor

10AM - 12PM

and Co-Chair

David Bailey

Co-Chair

Stephen Petron

1PM - 3PM

15. WATER SUSTAINABILITY

15.1 DEVELOPMENT OF POTENTIAL GAME CHANGING COOLING TECHNOLOGIES FOR **POWER PLANT WATER CONSERVATION**

Jessica Shi, Sr. Project Manager, Electric Power Research Institute: Sean Bushart

15.2 USE OF NON-DISINFECTED MUNICIPAL EFFLUENT

John Oster, Water Engineer, CH2M HILL; Charlie Nichols

15.3 COMMERICAL ENERGY EFFICIENT WASTEWATER TREATMENT & WATER REUSE - IMET **TECHNOLOGY**

Mehmet A. Gencer, CEO, IMET Corporation

15.4 ZERO LIQUID DISCHARGE FOR COMPLIANCE

Kristen Jenkins, Global Technology Lead - Industrial Water, CH2MHILL; Thomas Higgins

15.5 NEW AERATOR FOR WASTE LAGOONS

Jim Dartez, President, Reliant Water Technologies

15.6 USE MUNICIPAL RECLAIM WATER & HIGH CYCLES OF CONCENTRATION FOR COOLING TOWERS - SAVE WATER & ENERGY - BUT WAIT, THERE'S MORE....

Ivan Cooper, Principal, Civil & Environmental Consultants, Inc.

Session Sponsor and Co-Chair



John Oster

Co-Chair Jessica Shi

3:30PM - 5:30PM

Session Sponsors

and Co-Chairs

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BLACK & VEATCH

Mike Preston

16. WATER & ELECTRIC UTILITIES

I6.1 UNDERSTANDING THE ENERGY/WATER NEXUS & DEVELOPING CONSENSUS-BASED SOLUTIONS

Mary Doyle Kenkel, Executive Director, Center to Advance Energy & Water Management 16.2 MHI'S SIMPLE ZERO LIQUID DISCHARGE SYSTEM FOR WET FGD

Shintaro Honjo, Research & New Technologies Engineering Manager, Mitsubishi Heavy Industries America, Inc.; M. Ito, N. Inaba, & S. Sugita, MHI America, Inc.; T. Ushiku, T. Nagayasu, T. Fukuda & S. Kagawa, MHI, Ltd.

16.3 AN OVERVIEW OF THE WATER RESEARCH CENTER

Jeff Wilson, Principal Research Engineer, Southern Company: Richard Breckinridge EPRI: Jay

16.4 DESIGN & OPERATIONAL CHALLENGES ASSOCIATED WITH CONDITIONING Zachry Bahr, Mechanical Engineer, Burns & McDonnell

16.5 WATER RISK & OPPORTUNITY FOR ELECTRIC UTILITIES

Peter Flaherty, Sr. Engineer, ERM; Skelly Holmbeck

16.6 IMPINGEMENT MONITORING & MODELING AT 15 POWER PLANTS ON THE OHIO RIVER Greg Seegert, Chief Ichthyologist, EA Engineering, Science, & Technology; Ron King, Joe Vondruska, Doug Dixon

16.7 ADDRESSING THE NEW EFFLUENT STANDARDS THROUGH PLANT-WIDE MANAGEMENT Andrew Byers, Associate VP, Black & Veatch; Mike Preston

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Andrew Coleman

1PM - 3PM

Co-Chair

Greg Odegard

Co-Chair

11.4 YESAB - THE YUKON WAY

Ken McKinnon, Executive Committee Member, Yukon Environmental & Socio-Economic Assessment Board

11.3 SUSTAINABLE ENERGY FUTURES: DEVELOPMENT & APPLICATION OF A STRATEGIC

Lisa White, Environmental Engineer, Clifton Associates Ltd.; Bram Noble, University of

ENVIRONMENTAL ASSESSMENT PROCESS FOR ELECTRICITY SECTOR PLANNING

Saskatchewan

11.5 COLLABORATIVE ADVANCEMENT OF SUSTAINABILITY IN THE ELECTRIC POWER

11.2 GREEN CLAIMS & GREENWASHING - THE GRASS REALLY GREENER?

Charles Franklin, Senior Counsel, Akin Gump Strauss Hauer & Feld

INDUSTRY

Monday | January 28

Andrew Coleman, Marketing Mgr. Environ & Renewables, EPRI; Todd Maki, Jessica Fox

3:30PM - 5:30PM

Co-Chairs Warren Te Bruuge & **Edward Handl**

12. SUSTAINABILITY PROJECTS

12.1 SUSTAINING THE LIFE OF A HISTORIC STRUCTURE: REMEDIATION OF THE NV ENERGY ELKO, NEVADA POWERHOUSE USING OZONE OXIDATION

Edward Handl, Division Manager, JBR Environmental Consultants, Inc.; Jason Benson, NV

12.2 CREATING THE MINDSET OF SUSTAINABILITY

Warren Te Bruuge, CEO & Founder, Manzimvula Ventures, Inc.

12.3 EMPLOYEE ENGAGEMENT & PROJECT INVESTMENTS: CREATING A SUSTAINABILITY CONTINUUM

Devin Hodge, Sustainability Program Manager, Argonne National Laboratory

12.4 WIRE & CABLE EFFICIENCY

Evan Birenbaum, Program Manager, Southern California Edison; Carol Godfrey, Southwire 12.5 WASTE CONVERSION, AB32 & SUSTAINABILITY

Lara Helfer, Southern California Impact Assessment Practice Lead, ERM

Tuesday | January 29

7:30AM - 9:30AM

13. SUSTAINABILITY REPORTING

Co-Chair Yolanda Pagano 13.1 PRIDE & PREJUDICE - REPORTING IN CIVIL SOCIETY IN THE 21ST CENTURY Yolanda Pagano, Director, Sustainable Strategies & Solutions, O'Brien & Gere

13.2 RAISING THE BAR: NEW CHALLENGES FOR CORPORATE SUSTAINABILITY REPORTING

Jacob Kislevitz, Senior EHS&SR Specialist, Hess Corporation; Michal Pelzia 13.3 DODO-SAPIENS: WHY WE NEED REGENERATIVE, BIO-BASED BUILDINGS

Eric Corey Freed, Founding Principal, organicARCHITECT

13.4 SPILLS, SINS & STARBUCKS: HOW WE DESIGNED OUR CITIES AROUND OIL

Eric Corey Freed, Founding Principal, organicARCHITECT

13.5 ACCELERATING SUSTAINABILITY SOLUTIONS FOR ORGANIZATIONS

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Raj Buch, Practice Lead, Arizona State University 13.6 FRESHWATER FREE FOOD PRODUCTION WITH NO WASTE

Mark Edwards, Professor, ASU

Preliminary Program (1/9) ~ Subject to Change

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Research Laboratory

Cibik & Larry Danek

17. WATER SUSTAINABILITY

S. Wayne Rosenbaum, Partner, Stoel Rives LLP

17.1 CALIFORNIA STORM WATER & RENEWABLE ENERGY & ELECTRIFYING MIX

17.3 RECENT CHANGES IN STATES' SUSTAINABLE WATER USE POLICY

David Van Wie, Associate, AMEC Environment & Infrastructure

17.4 THE EVOLVING REGULATION OF THERMAL DISCHARGES

I7.2 ELECTRIC POWER RESEARCH INSTITUTE (EPRI) FISH PROTECTION R&D REVIEW: FINE MESH (=2.0 MM) TRAVELING WATER SCREENS & FISH RETURN SYSTEM PERFORMANCE

Douglas Dixon, Technical Executive, Electric Power Research Institute; Jon Black, Alden

Erik Heinen, Senior Scientist, Environmental Consulting & Technology; Mark Gerath, Steve

Wednesday | January 30

7:30AM - 9:30AM

Session Sponsor

and Co-Chair

Douglas Dixon

Co-Chair

Frik Heinen

Monday | January 28

J1. ENERGY EFFICIENCY

1PM - 3PM

J1.1 ENERGY EFFICIENCY THROUGH POWER ELECTRONICS: NAVIGATING THE LANDSCAPE & ASSESSING OPPORTUNITIES FOR MATERIALS INNOVATION

Pallavi Madakasira, Analyst, Lux Research

J1.2 COGENERATION UPGRADES FOR INCREASED ENERGY EFFICIENCY

Arvind Akela, Project Manager, CDM Smith

J1.3 DOING WELL & GOING GOOD: PROFITING IN THE HOME PERFORMANCE BUSINESS

Mark Berman, Principal, Davis Energy Group

J1.4 MOVING THE HOUSING MARKET TO ENERGY EFFICIENCY

Steve Baden, Executive Director, RESNET

J1.5 UNBURNED CARBON REDUCTION AND SO3 REMOVAL ONLINE

Michael Boyko, President & CEO, America Greener Technologies Corporation

and Co-Chair

Session Sponsor

Michael Bovko

MICHAEL DOYKO

Co-Chair Mark Berman

3:30PM - 5:30PM

Co-Chair

David Carter

Co-Chair

Mike Kaplan

J2. ENERGY MANAGEMENT

J2.1 THE ROLE OF BIG DATA ANALYTICS IN COMMERCIAL ENERGY EFFICIENCY

Mike Kaplan, Vice President of Marketing, Retroficiency; Kevin Burns

J2.2 ON-BILL REPAYMENT PROGRAMS SPUR GREEN JOBS, CLEAN ENERGY & RATEPAYER SAVINGS

Brad Copithorne, Director of Financial Innovation, Environmental Defense Fund

J2.3 ENERGY MANAGEMENT IMPLEMENTATIONS USING ISO 50001 & SEP - CRITICAL RISK & BUSINESS ECONOMIC BENCHMARK'S

Don MacDonald, Director - Sustainability & Energy Management, UL DQS

J2.4 INTERN PROGRAM HELPS INDUSTRIES ACHIEVE ENERGY & WATER SAVINGS

David Carter, Pollution Prevention Specialist, Kansas State University

J2.5 WHAT BUSINESSES CHOOSE ENERGY RETROFITS? THE CHARACTERISTICS THAT PREDICT PARTICIPATION IN THE ENERGIZE PHOENIX PROJECT

PARTICIPATION IN THE ENERGIZE PHOENIX PROJECT

Michael Kuby, Professor, Arizona State University; Anna Berlin, Samantha Neufeld, Scott Kelley, George Oliver, Michael Dalrymple, Alex Castelazo

J2.6 OPPD INTERN BENCHMARKS HEALTHCARE CONSORTIUM FOR ENERGY EFFICIENCY SUCCESS

Andrew Smith, Energy Efficiency Intern, Kansas State University

Tuesday | January 29

J3. SMART GRID

J3.1 CYBER SECURITY IMPLEMENTATION APPROACH FOR UTILITY SMARTGRID INITIATIVES

Rahul Chhabra, Cyber Security & Compliance Consultant, Burns & McDonnell Engineering; Jerome Farauharson

J3.2 INTEGRATED SMART GRID POWER DISTRIBUTION & ENERGY CONSERVATION SYSTEM FOR REMOTE & EXTREME CONDITIONS

Frank Pendleton, Program Manager, MRIGlobal; Sayan Chakraborti & Scott Klamm

J3.3 HURRICANE SANDY TURNS SMART GRID PLANS UPSIDE DOWN
John Finnigan, Senior Regulatory Attorney, Environmental Defense Fund

J3.5 ELPIPES & BALLISTIC BREAKERS AS ENABLERS FOR AN UNDERGROUND SUPERGRID

Roger Faulkner, Founder & President, Electric Pipeline Corporation

J3.6 ELPIPES TO CREATE HIGH CAPACITY IRELAND-UK POWER LINKAGE

Roger Faulkner, Electric Pipeline Corporation, Joe Corbett, Head of Technical Services, Mainstream Renewable Power Ltd.

Co-Chair John Finnigan

7:30AM - 9:30AM

Co-Chair

Roger Faulkner

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Chunlian Jim, Will Gorrissen, Jennie Rice

Owen Rogers, Product Lead, Pulse Energy

TO-MEDIUM BUSINESSES

URS

Wednesday | January 30

URS Workshop

7:30am-Noon

Title: Technical Strategies for Complying with Current and Future Regulatory Requirements- Dissecting the Economics.

Overview of Workshop

In recent years, significant advances in technology have improved the performance and reliability of AQCS systems. These advances were necessary to meet the more stringent environmental and regulatory requirements that have been implemented over the last decade. Utilities currently face new challenges as a result of the new regulations, such as MATS or CSAPR that are planned or have been recently enacted. As a result, the utility's AQCS systems will be challenged to meet even higher performance and reliability levels. The goals of this Workshop are to discuss these challenges and discuss the technologies that are available to meet them. The Workshop will discuss the regulatory drivers, and the benefits and weaknesses of the various technologies, in terms of both performance and economics. Information will also be presented on how a particular technology can be designed and operated to achieve control of multiple pollutants and how use of a particular technology can impact the ability of the plant to meet the control requirement for other pollutants. A presentation will also be given by a utility to provide a utility's perspective on decisions they are making for their plants.

Workshop Schedule

7:30am	Welcome and Introductions, Overview of the Workshop – Jay Clare, URS
7:35am	"Factors to Consider When Designing a Regulatory Compliance
	Approach" – Amy Marshall, URS
7:50am	"There is more to MATS Compliance than Reducing Hg Emissions" –
	George Lipinski, URS
8:10am	"Use of an Older FGD System as the Focal Point for MATS Compliance"-
	Gordon Maller, URS
8:30am	"Impact of Planned Regulations on Treatment & Discharge of FGD Liquid
	Discharges" – Gordon Maller, URS
8:50am	"Generating Benefits Beyond Opacity Control –SBS Injection Technology" -
	Sterling Gray, URS
9:10am	"Mercury Contact, Conversion, and Capture for MATS Compliance using
	Powdered Activated Carbon" S. Glesmann, ADA Carbon Solutions
9:30am	Break
10:00am	A Game Changer - GORE® Mercury Control Technology - Jonas
	Klingspor, URS
10:20am	"A Utility's Perspective for Complying with Air Quality Regulations –
10.40	Technology and Economics", Brent Gifford, APS
10:40am	"BACT for GHG-Where do we Stand after 24 Months." – Ron Crum, URS
11:00am	Panel Discussion – Q&A of Previous Presentations

Karen Campbell, URS

Email: Karen.campbell@urs.com

Tuesday | January 29

10AM - 12PM

J4. ENERGY EFFICIENCY & MGMT

Session Sponsor and Co-Chair



Worley Parsons J4.2 IMPACTS OF SEVERE WEATHER PHENOMENA ON THE ELECTRICITY INFRASTRUCTURE Michael Kintner-Meyer, Staff Engineer, Pacific Northwest National Laboratory; Jim Dirks,

GREAT RIVER ENERGY

Charles Bullinger

Co-Chair

Owen Roaers

J4.5 ACHIEVING CONSUMER ENGAGEMENT REQUIRES MORE THAN SOCIAL MEDIA. A **DIGITAL STRATEGY IS ESSENTIAL**

J4.4 LESSONS LEARNED FROM BEHAVIOR-BASED CONSERVATION PROGRAMS FOR SMALL-

J4.3 NEW BIO-CONTROL APPROACH BOOSTS POWER PLANT PRODUCTION BY 7%

Tom Muilenberg, Commercial Operations Manager, MIOX Corporation

J4.1 APPLICATION OF THE DRYFINING $^{\rm TM}$ TECHNOLOGY AT EXISTING POWER UNITS FIRING LOW-RANK COAL

Charles Bullinger, Senior Principle Engineer, Great River Energy; Vlad Vaysman & Yixin Lu,

Gregg Edeson, Energy Expert, PA Consulting Group

1PM - 3PM

Session Sponsor and Co-Chair

Ryn Hamilton

Ryn Hamilton

Co-Chair Laurie Wiengand-Jackson

J5. DEMAND RESPONSE/POWER PLANT OPERATION

J5.1 ROLE OF DEMAND RESPONSE BASELINES IN ESTIMATING PARTICIPANT IMPACTS Ryn Hamilton, Consultant, Ryn Hamilton Consulting; Mark Martinez, Southern California

J5.2 DEMAND RESPONSE & THE VALUE IT OFFERS UTILITY, COMMERCIAL, & INDUSTRIAL

Laurie Wiegand-Jackson, CEO & President, North America Power Partners

J5.3 RECAPTURING LOST MW & BOOSTING PLANT EFFICIENCY FROM LOWER RANK COALS Charles Bullinger, Senior Principle Engineer, Great River Energy

J5.4 IMPROVING BOILER PERFORMANCE AT XCEL'S COMANCHE STATION USING GE'S ZONAL COMBUSTION MONITORING SYSTEM Gregory George, Xcel Energy; Neil Widmer, Santosh Nareddy & David Moyeda, General

Electric; Antonio Marquez, Lead Engineer, General Electric J5.5 VERSATILITY OF NEW GENERATION DS® LOW NOX BURNER

Joe Brown, Aftermarket Services Product Manager, Hitachi Power Systems America; Peter

3:30PM - 5:30PM

Session Sponsor and Co-Chair

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J6. ENERGY CONSERVATION & STORAGE

J6.1 GRID STORAGE UNDER THE MICROSCOPE: USING LOCAL KNOWLEDGE TO FORECAST **GLOBAL DEMAND**

Hilary Flynn, Senior Analyst, Lux Research; Brian Warshay, Steven Minnihan, Matthew Feinstein

J6.2 MACRO LEVEL ENERGY HARVESTING

Gare Henderson, Director of R&D, Gravitational Systems Engineering, Inc.

Lucas Oehlerking J6.3 ENERGY CONSERVATION HYBRID STREET SWEEPER

Toshihiko Furukawa, Senior Manager, United Chemi-Con; Abas Goodarzi, Ph.D US Hybrid Corporation

Co-Chair

Hilary Flynn

J6.4 REGULATION, DEVELOPMENT & FINANCING OF GRID-SCALE ENERGY STORAGE **SYSTEMS** Donald Ousterhout, Partner, Reed Smith LLP; Amy Koch

J6.5 SMARTES - MODELING ENERGY STORAGE & PV INTEGRATION Lucas Oehlerking, Renewable Energy Consultant, Black & Veatch; Sam Scupham

Sponsorship Opportunities

Maximize your exposure as a sponsor at one of the USA's largest Energy Utility & Environment Conference & Expo.

- A variety of sponsorship packages designed to maximize your company's visibility
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1. ONE PAGE ADVERTISEMENT IN SHOW GUIDE - \$1,000

The Show Guide is the official, up-to-date information on the EUEC event. One page color Advertisement distributed to 2,000 delegates, is continously referenced multiple times a day by all attendees. You can have your logo included or do two facing page ads.

2. TECHNICAL SESSION SPONSOR & LOGO AD - \$500

Sponsor a Technical Session that you are Co-chairing and speaking for only \$500, with your company logo prominently advertised among the leading experts in the industry.

3. HOTEL KEY CARDS - \$8,000

Effectively place your business card in every attendee's pocket. Four-color custom design imprinted on Hotel Key Cards distributed to all attendees staying at official show hotels (Sheraton or Hyatt).

4. YOUR LOGO ON FLASH DRIVE CONFERENCE PROCEEDINGS - \$8,000

What's more important to the conference delegates after the event than the complete conference proceedings? This package allows maximum take-home exposure with your logo on the top of every credit-card type flash drive. A full electronic brochure advertisement of your company is included in the flash drive.

5. ATTENDEE LANYARD AND BADGE HOLDERS - \$8,500 - SOLD

This package includes logo placement on lanyards of the attendee name badge holders.

6. ATTENDEE REGISTRATION BAGS or FOLIO - \$10,000

Exclusive attendee bag sponsorship! Make your company name and logo float around the show floor on the side of the registration bags or a zippered folio with your company's log

7. GOLF SPONSOR - \$5,000

Exclusive sponsorship of the 2013 EUEC golf tournament with recognition at the opening breakfast, and closing awards luncheon. Includes two foursomes in the tournament, welcome banner at the course, tee signs and sponsor logo on the pairings form. A custom golf gift with company logo will be given to each player.

EVENT SPONSORSHIPS

A. PLATINUM NETWORK RECEPTION SPONSOR - \$10,000

Your Logo on Monday & Tuesday 5 pm to 7 pm Reception Tickets

The Networking Reception featuring hosted bars, carver tables and heavy appetizers from 5:00 to 7:00 on Monday or Tuesday. Signage with Company logo placed exclusively at sponsor designated bars. As a Network Reception sponsor you will have your name and logo in front of conference attendees on each meal ticket, and signs during the reception on Monday or Tuesday. A full page ad in the official show guide distributed to 2,000 delegates. Get involved as a sponsor and position yourself as a major hospitality player at EUEC.

B. GOLD NETWORK LUNCHEON SPONSOR - \$8,000

Your Logo on Monday & Tuesday 12 to 1 pm Luncheon Coupons

Help quench your target audience's appetite for new ideas, products and services that they are looking for. As a Network Lunch sponsor you will have your name and logo in front of conference attendees on each meal ticket, and signs during the luncheon on Monday or Tuesday, as well as a full page ad in the official show guide distributed to 2,000 delegates.

C. SILVER DELEGATE BREAKFAST SPONSOR - \$5,000

Your Logo on Monday, Tuesday & Wednesday Breakfast Coupons

Fire up the conference by sponsoring the morning breakfast and coffee service offered to delegates on Monday, Tuesday or Wednesday. Your company will be recognized with signage and your name and logo in front of conference attendees on each breakfast & coffee ticket, redeemable at the conference hotels and convention center.

D. BRONZE DELEGATE EVENT BREAK SPONSOR - \$3,000

Your Logo on Monday, Tuesday & Wednesday Coupons

Fire up the conference by sponsoring the morning or the afternoon break snack and coffee or beverage service offered to delegates on Monday, Tuesday or Wednesday AM and PM breaks. Your company will be recognized with signage and your name and logo in front of conference attendees on each break on the snack & coffee ticket, redeemable at the networking events in the conference exhibit hall.

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- Face-to-face contact with potential new customers among 2,000 delegates
- Unparalleled exposure for you and your brand
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- EUEC Newsletter distributed to 50,000 professionals

Call the EUEC office (520-615-3535) or email info@euec.com

Sunday Workshops 1:00 pm to 5:00 pm

contact: info@euec.com

Workshop 1 - Room 221C **JORDEN BISCHOFF**

Permitting & Compliance Eric Hiser,

& HISER, PLC

Jorden Bischoff & Hiser

Email: ehiser@jordenbischoff.com

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 your enforcement exposure.

Workshop 2 - Room 222C **A=COM**

Challenges

for Compliance With Short-term PM2.5, NO2, and

SO2 Ambient Standards Robert Iwanchuk, CCM (AECOM)

Robert Paine, CCM, QEP (AECOM) Email: bob.paine@aecom.com

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 - Room 223 **Emerging Air Quality**,

Trinity A. Consultants

Greenhouse Gas and Energy Requirements Rich Pandullo, Trinity Consultants

Email: rpandullo@trinityconsultants.com 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.

Wednesday 7:30 am - 12 pm

Workshop - Room 229A

Technical Strategies for Complying with Current and Future Regulatory Requirements-Dissecting

the Economics. Karen Campbell

Email: Karen.campbell@urs.com

In recent years, significant advances in technology have improved the performance and reliability of AQCS systems. These advances were necessary to meet the more stringent environmental and regulatory requirements that have been implemented over the last 10 years.

Golf Tournament

Arizona Grand Resort 8000 S. Arizona Grand Parkway Phoenix, AZ

Sunday January 27, 2013

7:30 am Breakfast 8:00 am shotaun start 12:00 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

1st Prize:

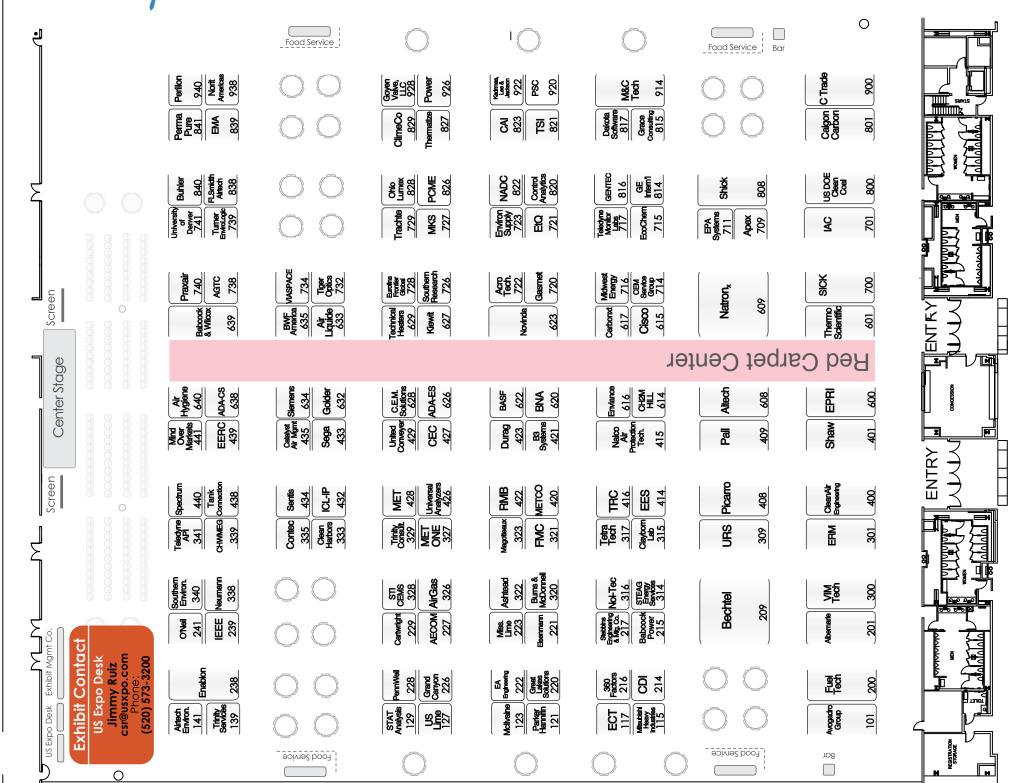
EUEC 2014 Registration for you and a guest and entry into the 2014 **EUEC Golf tournament.**

All participants receive a free entry into a \$10,000 hole in one contest

Where do

Reply to the EUEC2013 Survey and share your preference with us





Exhibiting Companies

216	360 Factors, Inc.	728	Eurofins Frontier Global Sciences
722	Acro Technologies, Inc.	838	FLSmidth-AFT Division
638	ADA Carbon Solutions(ADA-CS)	321	FMC Corp. PerNoxide
626	ADA-ES, Inc.	200	Fuel Tech, Inc.
227		720	Gasmet Technologies, Inc.
	AECOM, Inc.	814	
640	Air Hygiene		GE International, Inc.
633	Air Liquide America Spec. Gases	816	GENTEC
326	Airgas	632	Golder Associates. Inc.
141	Airtech Environmental Services	928	Goyen Valve, LLC
201	Albemarle Corporation	815	Grace Consulting, Inc.
808	Altech Environment USA	226	Grand Canyon Univeristy
738	America Greener Technologies	220	Great Lakes Solutions
709	APEX Instruments, Inc.	432	ICL Industrial Products
322	Ashtead Technology Inc.	239	IEEE
101	Avogadro Group, LLC	701	Industrial Accessories Company
421	B3 Systems, Inc.	922	Kadrmas, Lee & Jackson
639	Babcock & Wilcox	627	Kiewit
215	Babcock Power, Inc.	914	M&C Tech Group North America
622	BASF	428	Marsulex Environmental Tech. (MET)
209	Bechtel Power	323	Magotteaux, Inc.
620	Bloomberg BNA	123	McIlvaine Company
840	Buhler Technologies LLC	327	MET ONE
320	Burns & McDonnell	420	METCO Environmental
635	BWF America	716	Midwest Energy Emissions Corp.
900	C Trade	441	Mind Over Markets
628	C.E.M. Solutions	223	Mississippi Lime Company
801	Calgon Carbon Corporation	115	Mitsubishi Heavy Industries
823	California Analytical Instruments	727	MKS Instruments, Inc.
617	Carbonxt, Inc.	415	Nalco Air Protection Technologies
229	•	609	
	Cartwright & Associates	338	Natronx Technologies, LLC
435	Catalyst Air Management, Inc.		Neumann Systems Group
714	CEM Service Group	316	Nol-Tec Systems, Inc.
214	Cervantes-Delgado, Inc.(CDI)	938	Norit Americas, Inc.
614	CH2M HILL	822	North American Dismantling Corp.
339	CHWMEG, Inc.	623	Novinda
615	CiSCO - Custom Instr. Services	828	Ohio Lumex Company, Inc.
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315	Clayborn Lab	409	Pall Corporation
400	CleanAir Engineering	121	Parker Hannifin Corporation
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820	Control Analytics, Inc.	841	Perma Pure, LLC
817	Dakota Software Corporation	408	Picarro, Inc.
423	Durag, Inc.	926	POWER Magazine
222	EA Engineering, Science & Tech.	740	Praxair
715	EcoChem Analytics	920	PSC
439	EERC	422	RMB Consulting & Research, Inc.
221	Eisenmann Corporation	433	Sega, Inc.
839	EMA	434	Sentis USA, Inc.
238	Engblon	401	Shaw Group, Inc.
616	Enviance, Inc.	808	Shick USA
117	Environmental Consulting & Tech.	700	SICK Maihak, Inc.
414	Environmental Energy Services	634	Siemens Industry, Inc.
723	Environmental Supply Co., Inc.	340	Southern Environmental, Inc.
711	EPA Systems, LLC.	726	Southern Research Institute
600	EPRI	440	Spectrum Systems, Inc.
301	ERM	129	
721	EKM FiO Inc	21.4	STAT Analysis Corporation

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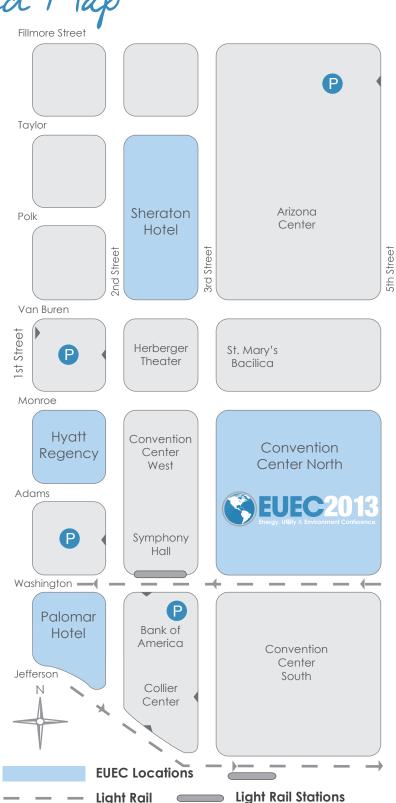
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