

18th Annual | Feb 16-18, 2015 San Diego Convention Center 111 W Harbor Dr., San Diego, CA 92101

EUEC 2015
Energy, Utility & Environment Conference
Feb 16 - 18 | San Diego, CA

Ballroom

EV•NGV•H2•Biofuels•Hybrid•Fleet Vehicles

Clean Car Expc.com

Feb 16 - 18, 2015 | San Diego, California

Sails Pavilion

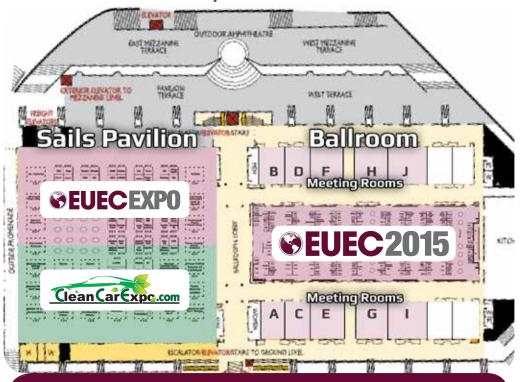
EXHIBIT SHOW HOURS

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

EUEC NETWORKING RECEPTIONS

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

Location Map of Co-Located Events



REGISTRATION COST INCLUDES:

- 11 networking meals tickets for 3 days (\$300 value)
- Flash Drive proceedings with 400 speakers audio (\$495 value)
- Attend all 500 presentations & both events for 3 days

REGISTER ONLINE	NOW	FEB 12.	ON SITE
Attendee (Full Reg)	\$995	\$1,095	\$1,395
Exhibitor / Speaker/Govt	\$695	\$795	\$1,295
Utility Employee	\$595	\$695	\$1,295
EUEC Exhibitor Pass	\$395	\$495	\$595
Clean Car Expo Pass	FREE	\$100	\$200

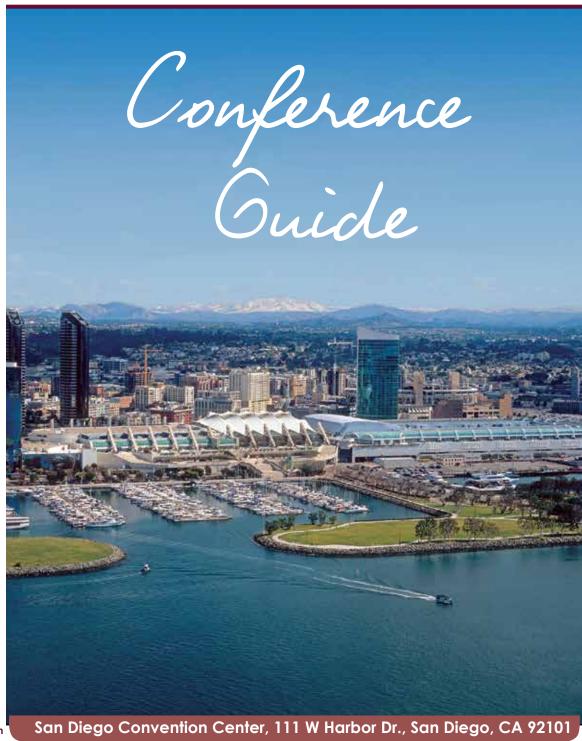


Table of Contents

What are EUEC & CCE?	2
Directors and Schedule	3
Keynote	4
EUEC Program At-a-Glance	5

EUEC Tracks

Track A: Air Policy & Regulations	7
Track B: CEMS & AQ Monitoring1	0
Track C: Mercury Control1	3
Track D: Energy Policy & Security1	6
Track E: Control Technoogies & Catalysts1	9
Track F: Renewable Energy2	2
Track G: Operations & Mgmt2	5
Track H: CC\$ & Fuel Technologies2	8
Track I: Water 316(b)3	1

Track J: Clean Car Expo......41

Combined Floor Plan	37
Sails Pavilion Floor Plan	39
Ballroom 6 Floor Plan	41
Exhibit Reservation Form	43
Marketing Opportunities	44
Map & Hotels	46
Golf Tournament	45
Onsite Info	58

What is EUEC?

EUEC2015: The 18th Annual Energy, Utility & Environment Conference & Expo, is USA's largest professional networking & educational event of its kind, held Feb 16 - 18, 2015, at the San Diego Convention Center, San Diego, California.

The technical program consists of over 400 speakers in 10 concurrent tracks held in the meeting rooms A to J across the EUEC 2015 exhibit ballroom.

Over 2,000 delegates preregistered for the joint events.

Who A	tended	3% Finance / Legal 19% Consulting	30%
Year	Delegates		Energy & Electric
EUEC2013	1,705		Utilities
EUEC2012	2,037	22% Emissions	14%
EUEC2011	1,830	Monitoring	Renewable
EUEC2010	1,945	6%	Energy 6%
EUEC2009	1,783	Government & Regulatory	Climate Policy

What is Clean Car Expo?



CO-LOCATED IN SAILS PAVILION

Clean Car Expo is held concurrently in the Sails Pavilion, showcasing alternate fuel vehicles, technology companies, suppliers, fuel providers, and consultants including EV, CNG, H2, NGV, biofuel, hybrid and fleet management companies.

The Clean Car Expo promotes the Clean Cities Program, to support alternative and renewable fuels, and implement alternative-transportation and advanced vehicle projects, and other measures that reduce U.S. reliance on petroleum consumption in the transportation sector.

Clean Car Expo promotes the program by offering free exhibit space for alternate fuel vehicles, and free admission passes to Clean City Coalitions, fleet operators, and other transportation professionals. Registration is required for the free passes.

Track J of the technical program, held in Ballroom is dedicated to speakers in the Clean Car Session.

The Clean Car Expo is located in the Sails Pavilion across, from the EUEC 2015 Ballroom. Free passes may be upgraded for admission the EUEC 2015 conference in the Ballroom. EUEC delegates get free access to the Clean Car Expo and EUEC Expo in the Sails Pavilion.



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Mission Statement

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

EUEC2015 Exhibit & Network Schedule

Sunday	/	Feb. 15th	
7:00 am	-	7:00 pm	Registration
1:00 pm	-	7:00 pm	Exhibit Set-up
5:00 pm		9·00 pm	Wolcomo Pocontio

0.00 p		0.00 piii	Welcome Recep
Monday	/	Feb. 16th	
7:00 am	-	7:00 pm	Registration
7:00 am	-	10:00 am	Carry in Set-up
9:00 am	-	12:00 pm	Plenary Session
12:00 pm	-	1:00 pm	Network Lunch 1
1:00 pm	-	3:00 pm	Tech Session 1

3:00 pm	:00 pm - 3:30 pm		Network Break 2		
3:30 pm	_	5:30 pm	Tech Session 2		

5:00 pm - 7:00 pm Network Reception 3

ech Session 3

Tuesday	Feb. 17th	
7:30 am -	9:30 am	T

12:00 pm	-	1:00 pm	Network Lunch 5
10:00 am	-	12:00 pm	Tech Session 4
9:30 am	-	10:00 am	Network Break 4
7.50 am	-	7.30 UIII	16011363310113

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

3:00 pm	-	3:30 pm	Ne	etw	ork	Bre	eak 6
			_		_		

3:30 pm - 5:30 pm Tech Session 6

5:00 pm - 7:00 pm Network Reception 7

Wednesday | Feb. 18th

3

7:30 am -	9.30 am	Tech Session 7
7.30 am -	7.30 am	16(11.3622)(11.7

9:30 am - 10:00 am Network Break 8

10:00 am - 12:00 pm Tech Session 8

12:00 pm - 4:00 pm Exhibit Tear Down

•			
Show Hours Feb	16 - 18, 2	2015	5
Sun Setup 2/15	1 pm	-	7 pm
Mon Carry In 2/16	7 am	-	10 pm
Mon 2/16	12pm	-	7 pm
Tue 2/17	9 am	-	7 pm
Wed 2/18	9 am	-	12 pm
Breakdown 2/18	12 pm	-	4 pm



Monday, February 16th, 9:00 AM - 12:00 PM San Diego Convention Center | 111 W. Harbor Dr. | San Diego, CA



UPDATE ON CLEAN AIR ACT ACTIONS

JANET MCCABE — 9:00 AM - 9:30 AM

Assistant Administrator | U.S. Environmental Protection Agency

FEPA United States Environmental Protection Agency



COMMERCIAL DEPLOYMENT OF CARBON CAPTURE AND STORAGE PROJECTS DR. JULIO FRIEDMANN — 9:30 AM - 10:00 AM

Deputy Assistant Secretary for Clean Coal | US DOE





UTILITY SOLUTIONS FOR REGULATORY CHALLENGES WARNER L. BAXTER - 10:00 AM - 10:30 AM

Chairman, President and CEO | Ameren Corporation





SHARED SOLUTIONS FOR LOCAL AIR POLLUTION, CLIMATE CHANGE, AND ENERGY SECURITY

DR. BARRY R. WALLERSTEIN - 10:30 AM - 11:00 AM

Executive Officer | South Coast Air Quality Management District





ACCELERATING THE TRANSITION TO CLEAN TRANSPORTATION

LEN HERING, RADM, USN (RET.) - 11:00 AM - 11:30 AM

Executive Director | California Center for Sustainable Energy





HIGHLIGHTS OF EUEC2015 & CLEAN CAR EXPO

DR. PRABHU DAYAL — 11:30 AM - 12:00 PM

Chairman | EUEC



EUEC Program At - A - Glance

Track	Α	В	С	D	Е	F	G	Н		J
Sessions	AIR POLICY & REGULATIONS	CEMS & AQ MONITORING	MERCURY CONTROL	ENERGY POLICY & SECURITY	CONTROL TECHNOLOGIES	RENEWABLE ENERGY	OPERATIONS & MGMT	CCS & FUEL TECHNOLOGIES	WATER 316(b)	TRANSPORTA- TION
Monda	ay February	16								
1:00PM to 3:00PM	Regulatory Update	CEMS & Air Quality	Hg Control Demon- strations	Energy Policy & Security	Control Technologies	Renewable Energy Markets	Decommiss -ioning of Power Plants	Carbon Footprint & Green Projects	Wastewater Mgmt.	Fleet
2 3:30PM to 5:30PM	Regulatory Update - GHG	CEMS & MATS	Activated Carbon - Hg	Sustainability Projects	ESP	Distributed Generation	Power Plant & Boiler Optimization	GHG & eGrid Updates	Water & Electric Utilities	
Tuesd	ay February	17								
37:30AM to 9:30AM	NAAQS	HCL Monitoring	Hg Control Technologies	Energy Efficiency	PM, Opacity & Visibility	Renewable Development Analysis	EHS & EMIS	Biofuels, Ethanol & Biodiesel	316b	EV, PHEV, Hybrid Systems
410:00AM to 12:00PM	NSR	Monitoring, DAS & Protocol Gasses	Dry Sorbent Injection	Smart Grid & Energy Rates	111(d)	Renewable Project Development	EHS & Risk Mgmt.	Biomass	316b	Battery & Storage Systems
5 1:00PM to 3:00PM	CAA Compliance	Sorbent Traps & CEMS	Hg MATS Compliance	Energy Policy & Finance	SO2, SO3 & Additives	Solar & Wind	Remediation, Ecological Design & Mitigation	Coal Ash / CCP	FGD Wastewater -ZLD	H ₂ Fuel Cells
6 3:30PM to 5:30PM	Compliance Strategies	Modeling	Hg Demon- stration & Installation	Energy Efficiency & Data	NOx CONTROL	Solar & PV	Operations & Optimization	Alternative Energy	FGD Wastewater	
Wedne	esday Febru	ary 18								
77:30AM to 9:30AM	Permits & Compliance	Monitoring & Reporting	Hg Control	Natural Gas	SCR & Control Technologies	Community Solar	Compliance Technologies & Strategies	Calitornia Climate Management	Water Sustainability	
8 10:00AM to 12:00PM	MATS Compliance & Air Policy		HG Control & ESP	Climate Change - Risk Management		Batteries & Storage	Operations & Mgmt.	CCS: Carbon Capture & Storage		
9 1:00PM to 3:00PM				Energy Technology		Renewable Energy	-	CC3 II		

Preliminary Program - Subject to Change

6

Monday | February 16

1PM - 3PM

A1. REGULATORY UPDATE

and Co-Chairs John Kinsman, Sr. Director - Environment, Edison Electric Institute

SUTHERLAND

A1.2 THE POST-CLEAN POWER PLAN COAL FLEET & COMPLIANCE WITH OTHER AIR, WATER & **WASTE RULES**

Jay Holloway, Partner, Sutherland Asbill & Brennan LLP

Jay Holloway

Edison Electric

A1.3 STRATEGIC IMPLICATIONS OF NEW ENVIRONMENTAL RULES

Block Andrews, Strategic Environmental Solutions Director, Burns & McDonnell

Kenneth Weiss, Partner, ERM

John Kinsman

A1.6 UARG V. EPA: WHAT DOES IT MEAN FOR EPA'S GHG REGULATORY PROGRAM?

Session Sponsor A1.1 REGULATORY UPDATE

A1.4 EXPERT TESTIMONY AT ADJUDICATED PERMIT HEARINGS

Gale Hoffnaale, Senior Vice President & Technical Director, TRC Environmental Corporation

A1.5 NSR 2015 - NEW & CONTINUING CHALLENGES FOR ELECTRIC UTILITIES

William Wehrum, Partner, Hunton & Williams

3:30PM - 5:30PM

A2. REGULATORY UPDATE - GHG

and Co-Chair

Session Sponsor A2.1 PROPOSED CLEAN POWER PLAN REGULATION, STRATEGIC RESPONSE FOR STATE & UTILITY COMPLIANCE

Michael Cashin, Environmental Policy Advisor, Minnesota Power(ALLETE)

A2.2 COMING SOON TO A UTILITY NEAR YOU - THE SOCIAL COST OF CARBON...

Ron Crum, VP, AECOM

A2.3 GREENHOUSE GAS PERFORMANCE STANDARDS FOR POWER GENERATION: A SURVEY

OF ISSUES & APPROACHES

Michael Cashin Jeff Chaffee, President, Bison Engineering, Inc.; Kevin Matthews

A2.4 POLICY ARCHITECTURE & CLEAN POWER PLAN: SOLID FOUNDATION OR HOUSE OF

CARDS?

Marc Chupka, Principal, The Brattle Group

A2.5 POTENTIAL IMPACTS OF EPA'S PROPOSED GHG RULE ON PJM

Gary Helm, Lead Market Strategist, PJM Interconnection

A2.6 GHG REGULATIONS FOR EVERYONE - NOT JUST UTILITIES

William Campbell, Principal Engineer, Environmental Consulting & Technology, Inc.

Tuesday | February 17

Co-Chair

Robert Paine

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

A3.1 THE STATE OF THE NAAQS IN 2015

Kurt Kissling, Attorney, Pepper Hamilton LLP

A3.2 PRACTICAL IMPLEMENTATION OF EPA'S SO2 & PM2.5 MODELING GUIDANCE

George Schewe, Meteorologist/Principal Consultant, Trinity Consultants

A3.3 THE SO2 DATA REQUIREMENTS RULE: CHALLENGES, OPTIONS, & OPPORTUNITIES

Richard Hamel, Senior Project Manager, Environmental Resources Management (ERM)

A3.4 DEALING WITH THE SO2 NAAQS DATA REQUIREMENTS RULE: CHALLENGES & OPTIONS

Robert Paine, Associate Vice President, AECOM; David Heinold & Robert Iwanchuk

A3.5 PM2.5 MODELING GUIDANCE OVERVIEW AND CASE STUDIES FOR SECONDARY FORMATION OF PM2.5 FROM PRECURSORS

Anna Henolson, Managing Consultant, Trinity Consultants; Justin Fickas

A3.6 CHALLENGES WITH RESOLUTION OF DESIGNATED 1-HOUR SO2 NON-ATTAINMENT

AREAS

Mary Kaplan, Senior Staff Specialist, AECOM; Robert J. Paine

Tuesday | February 17

A4. NSR 10AM - 12PM

A4.1 RECENT DEVELOPMENTS IN NSR

Lynn Hutchinson, General Counsel & Senior Project Manager, RTP Environmental Associates, Inc.; Gary McCutcheon

A4.2 THE UTILITY NEW SOURCE REVIEW ENFORCEMENT INITIATIVE – MORE THAN A DECADE OLD & IT KEEPS GOING, & GOING, & GOING.

Makram B. Jaber, Partner, Hunton & Williams LLP

A4.3 RECENT DEVELOPMENTS IN NEW SOURCE REVIEW SETTLEMENT & CONSENT DECREE IMPLEMENTATION

Liz Williamson, Partner, Sutherland Asbill & Brennan LLP

A4.4 DOMINANT AIR QUALITY ISSUES DRIVING DECISION MAKING ON PLANT SITING, CONFIGURATION, & CAPITAL EXPENDITURES

Michael Zebell, Senior Consultant, Environmental Resources Management Inc.; Mark Thimke, Foley & Lardner, LLP

A4.5 AIR PERMITTING STRATEGY FOR SMALL GAS TURBINE PROJECT BEFORE, DURING, AND AFTER THE TAILORING RULE

Leslie Witherspoon, Manager - Environmental Programs, Solar Turbines Incorporated

A5. CAA COMPLIANCE

A5.1 EPA'S DISAPPROVAL OF STATE REGIONAL HAZE PLANS

Mack McGuffey, Partner, Troutman Sanders LLP

A5.2 EPA'S STARTUP, SHUTDOWN & MALFUNCTION SIP CALL TO STATES

Randy Brogdon, Partner, Troutman Sanders LLP

A5.3 EPA'S PROPOSED CLEAN POWER PLAN

Brian Toth, Climate & Renewable Strateay Manager, Southern Company

A5.4 EPA'S CLEAN POWER PLAN: CAN IT SURVIVE THE COURTS?

Allison Wood, Partner, Hunton & Williams LLP

A5.5 DYNAMIC IMPLICATIONS OF THE BSER

Victor Niemeyer, Program Manger, EPRI; David Young

A5.6 111(D) - PIVOT TO THE STATES

Steven Fine, Vice President, ICF International

1PM - 3PM

Co-Chairs

Liz Williamson

Mike Zebell

Session Sponsor and Co-Chairs



Mack McGuffey & Randy Brogdon

A6. COMPLIANCE STRATEGIES

A6.1 COMPLIANCE DETERMINATIONS FOR COAL-FIRED EGUS THAT ARE SUBJECT TO BART Carl Weilert, Principal Consultant, CVW Consultants, LLC

A6.2 EPA'S AVERT: AVOIDING EMISSIONS FROM THE ELECTRIC SECTOR THROUGH **EFFICIENCY & RENEWABLE ENERGY**

Jeremy Fisher, Sr. Scientist, Synapse Energy Economics; Robyn DeYoung, EPA State & Local Climate & Energy Program

A6.3 AIR QUALITY COMPLIANCE MANAGEMENT FOR SMALL & MID-SIZE RURAL UTILITIES Erik Haas, Principal, HMH Consulting LLC

A6.4 A LOOK AT EPA'S PROPOSED NEW OZONE STANDARDS

Jon Greene, Air Quality Engineer, 360factors: Ed Sattar

A6.5 PURSUIT OF REPRESENTATIVE PM2.5 EMISSION FACTORS FOR GAS-FIRED COMBUSTION UNITS

Louis Corio, Senior Air Quality Scientist, Zephyr Environmental Corporation

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Erik Haas



8

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

Session Sponsor A7.1 EPA 301 STUDY ON VISIBLE EMISSIONS FROM LARGE STACKS

and Co-Chair Allison Dolan, Visible Emission Consultant, Sustainable Skys

R

A7.2 THE EVOLUTION OF GREENHOUSE GAS PERMITTING

Jennifer Flannery, Project Manager, All4 Inc.

BLACK & VEATCH A7.3 PROJECT RISKS IN DETERMINING STARTUP EMISSIONS LIMITS FOR AIR PERMITS

Mark Bleckinger, AQC Section Lead, Black & Veatch; Jason Zoller

Mark Bleckinger A7.4 IMPLICATIONS OF ACCURATE SOURCE CHARACTERIZATION ON PERMITTING FOR THE

1-HOUR NAAQS

Ron Petersen, Vice President, CPP, Inc.

Co-Chair Allison Dolan A7.5 AT THE INTERSECTION OF MODELING, PERMITTING, & COMPLIANCE - THE NO2/NOX **IN-STACK RATIO**

Shirley Rivera, Principal Consultant, Resource Catalysts

A7.6 FAST STARTS VS. MODELED COMPLIANCE: A FEASIBILITY STUDY FOR NEW POWER

GENERATION

Sara Head, Vice President, AECOM

10AM - 12PM



Michael Rossler

A8. MATS COMPLIANCE & AIR POLICY

Session Sponsor A8.1 THE FINAL MATS RULE: LAST CALL FOR COMPLIANCE

and Co-Chair Michael Rossler, Manager - Environmental Programs, EEI

A8.2 SUMMARY OF COMPLIANCE FOR MATS OPTIONS

Eri Ottersburg, Senior Engineer, SLR International; Bruce Macdonald

A8.3 MATS EMISSIONS AVERAGING - RESTRICTIONS & IMPLEMENTATION

Russell Bailey, Principal Consultant, Trinity Consultants

A8.4 EPA'S POWER PLANT CARBON STANDARDS: A VIEW FROM CAPITOL HILL

James McCarthy, Specialist in Environmental Policy, Congressional Research Service

A8.5 THE EFFECTS OF CHANGING PERMITTING REGULATIONS

Don Caniparoli, Air Quality Scientist, CH2M HILL; Tim Burke & Dave Weiss, US Borax

A8.6 EVALUATION OF MULTIPLE SOURCES & CONCENTRATIONS FOR PM2.5 MANAGEMENT

Jong-Ryeul Sohn, Professor, Graduate School of Korea University; Hyeon-Ju Oh & Jinho Yang; Seung Ho Yoo, Korea University

Monday | February 16

B1. CEMS & AIR QUALITY

B1.1 PERFORMANCE UPDATE & REVIEW OF COATINGS USED TO IMPROVE RELIABILITY & ACCURACY OF MERCURY & SULFUR SAMPLING SYSTEMS

Gary Barone, Business Manager, SilcoTek Corporation; Marty Higgins

B1.2 MEASURING HCL EMISSIONS USING HOT/WET EXTRACTIVE FTIR CEMS

Jim Cornish, Technical Sales & Support Manager, Gasmet Technologies Inc.

B1.3 THE ALL BLUE MERCURY MESSENGER, AN IMPROVED MERCURY SORBENT TRAP **ANALYZER**

Philip Dufresne, President, ALL BLUE

B1.4 CEMS TECHNOLOGIES FOR THE GAS TURBINE MARKET

Malek Hattar, Sales & Marketing Manager, Altech Environment U.S.A.

B1.5 PEMS TESTING: A REAL-WORLD CASE STUDY

Ian Havard, New Business Development, Emissions Analytics

1PM - 3PM

Co-Chairs Jim Cornish

&

Malek Hattar

B2. CEMS & MATS

B2.1 MACT MONITORING COMPLIANCE CONSIDERATIONS & COSTS FROM FACILITY PERSPECTIVE

Anne McQueen, Senior Associate Engineer, Amec Foster Wheeler Environment & Infrastructure, Inc.

B2.2 TRAP MONITORING SYSTEMS: ONGOING VALIDATIONS & ADAPTION FOR DIFFERENT APPLICATIONS

Jurgen Reinmann, Branch Manager, Environnement S.A Deutschland

B2.3 ESP UPGRADE FOR MATS COMPLIANCE AT MARION 4

Robert Mastropietro, V. P. Technology, KC Cottrell Inc.; Michael Widico

B2.4 MERCURY CEM - EMISSIONS & PROCESS CONTROL

Dan Kietzer, Division Manager - National Product Managment, SICK, Inc.

B2.5 MATS CEMS DEFINITION TO CERTIFICATION: A CONSULTANT'S CHECKLIST FOR SUCCESS

Brian Petermann, Manager, Air Quality Compliance; Sega Inc.

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Mousa Zada

Co-Chair Anne McQueen

Tuesday | February 17

B3. HCL MONITORING

B3.1 EXPERIENCE USING CAVITY ENHANCED ABSORPTION SPECTROSCOPY (CEAS) FOR HCL MEASUREMENT ON A COAL-FIRED POWER PLANT

Steve Gibbons, Business Development Manager, ABB Inc.

B3.2 TUNABLE DIODE LASER (TDL) BASED HCL CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) DEVELOPMENT CHALLENGES & MONITORING TECHNOLOGIES TO MEET PERFORMANCE SPECIFICATION 18

Gary Cacciatore, Business Development Manager, Cemtek Environmental; Tim Kuiken

B3.3 A ROBUST, COMPACT & VERSATILE SOLUTION FOR HYDROGEN CHLORIDE CEM Phil McMaster, CEMS Business Manager, Tiger Optics

B3.4 HYDROGEN CHLORIDE MONITORING BY FTIR

Kevin Ramazan, VP of FTIR Operations, Calfornia Analytical Instruments

B3.5 CONTINUOUS EMISSIONS MONITORING OF HCL: SAMPLING SYSTEM DESIGN AND **OPERATION CONSIDERATIONS**

Roberto Bosco, Principal Applications Engineer, MKS Instruments; Barbara Marshik & Sylvie Bosch-charpenay



Lisa Bergson

7:30AM - 9:30AM

Session Sponsor

and Co-Chair

Co-Chair Steve Gibbons



10AM - 12PM

B4. MONITORING, DAS & PROTOCOL GASSES

B4.1 A DILUTION CALIBRATOR DESIGNED TO MINIMIZE SOURCE TESTING GAS CYLINDER COSTS WHILE IMPROVING ON-SITE FLEXIBILITY

Doug Haugen, Product Manager, Teledyne API; Ray Jalisi

B4.2 COST EFFECTIVE REMOTE SENSING OF THE UPPER ALTITUDE WIND FIELD & INVERSION **HEIGHTS**

Kenneth Underwood, President, Atmospheric Systems Corporation

Co-Chairs Kevin Crosby &

Robert Davis

B4.3 TOP TEN TO-DO ITEMS FOR A SUCCESSFUL EMISSION TEST OR RATA, & THE BOTTOM TEN NOT-TO-DO, FOR MERCURY, HCL, PM, NOX & OTHER MONITORS OR EMISSION LIMITS

Kevin Crosby, VP-Technical, Montrose Environmental Group, Inc.; Judith Aasland **B4.4 HOW MUCH UNCERTAINTY IS THERE IN AN STATIONARY SOURCE TEST?**

Robert Davis, Project Director, TRC Solutions

B4.5 EPA ALTERNATIVE METHOD 082 DIGITAL OPACITY

Shawn Dolan, President, Virtual Technology LLC

1PM - 3PM

and Co-Chair



Ben Sehgal

Co-Chair Robert Davis

B5. SORBENT TRAPS & CEMS

Session Sponsor B5.1 THE LATEST TIPS & TRICKS FOR GETTING THE BEST MERCURY RESULTS USING SORBENT

Philip Dufresne, President, ALL BLUE

B5.2 SORBENT TRAP INNOVATIONS: SO3, NH3, HCL

Andrew Mertz, Analytical Engineer, Ohio Lumex; Joseph Siperstein & Anthony Schneider

B5.3 GAS TURBINE REGULATORY REGULATIONS WITH A FOCUS ON CEMS & PART 75 UPDATE

Ben Sehgal, Senior Air Resource Engineer, California Air Resource Board

B5.4 FORUM ON LOW LEVEL EMISSINS TESTING WITH CARB

Robert Davis, Project Director, TRC; Ben Sehgal, CARBI; Bernadette Shain, CAI; Bob Finken,

B5.5 FORUM ON LOW LEVEL EMISSIONS TESTING WITH CARB

Bernadette Shahin, National Applications Manager, M&C TechGroup; Ben Sehgal CARB; Bob Davis TRC; Bob Finken, Montrose

B5.6 MATS - CHALLENGES, OPPORTUNITIES & SOLUTIONS FOR COMPLIANCE MONITORING

Karl R. Wilber, PE, General Manager, Tekran Instruments Corporation

B6. MODELING

3:30PM - 5:30PM

B6.1 TO 30-DAY LIMIT OR TO NOT 30-DAY LIMIT: AN EVALUATION OF ONE-HOUR MODELED **EMISSION RATES & 30-DAY PERMIT LIMITS**

Jared Anderson, Senior Air Dispersion Modeler, Wenck Associates, Inc.

B6.2 EVALUATION OF LOW WIND MODELING APPROACHES FOR TALL-STACK DATABASES

Robert Iwanchuk, North America Air Quality Practice Leader, AECOM; Robert Paine **B6.3 CHALLENGES WITH NAAQS IMPLEMENTATION USING REGULATORY AIR QUALITY**

MODELING GUIDANCE & TECHNIQUE

Richard Hamel, Senior Project Manager, ERM; Beth Barfield & Mark Garrison

Co-Chair **B6.4 PREDICTIVE EMISSIONS MONITORING FOR AIR COMPLIANCE & PROCESS**

Anke Beyer-Lout

OPTIMIZATION Brian Swanson, President, CMC Solutions LLC; Bryan Bush & Eugene Simon

B6.5 COMPARISON OF SACTI & AERMOD DROPLET DEPOSITION PREDICTIONS FOR A WET

Anke Beyer-Lout, Project Scientist, CPP Inc.; Ron L. Petersen, Ph.D., CCM

B6.6 AMBIENT ODOUR MEASUREMENT & MODELING

Maryam Mirzajani, Environmental Engineer, Matrix-Solutions

Wednesday | February 18

B7. MONITORING & REPORTING

B7.1 UNDER REPORTING OF NOX EMISSIONS

Robert Mullowney, President, MonitorTech Corporation LLC

B7.2 PARTICLE LOSSES WITH A LARGE DIAMATER NAFION AIR SAMPLE DRYER

Gene Bohensky, OEM Sales Manager, Perma Pure LLC

B7.3 NEW GENERATION NOX O2 ANALYZER FOR CONTINUOUS MEASUREMENT

Tom McKarns, Principal, ECO PHYSICS, INC.

B7.4 DESIGN & OVERSIGHT OF EMISSION TESTING PROGRAMS

David Elam, Principal, TRC Environmental; Doug Austin, Institute of Clean Air Companies

B7.5 MULTI-SOURCE MONITORING VIA THE CLOUD

Joseph Montano, Regional Sales Manager, Standard Filter; Toby Wiik

B7.6 RADIOLOGICAL FORECAST MODELING SYSTEM

Bryan Matthews, Operations Manager, Lakes Environmental Software; Dr. Jesse Thé, Michael T. Hammer, & Bryan D. Matthews

7:30AM - 9:30AM

Session Sponsor and Co-Chairs



David Elam

Co-Chair Robert Mullowney

Monday | February 16

1PM - 3PM

C1. HG CONTROL DEMONSTRATIONS

C1.1 SCRUBBER ADDITIVES FOR MERCURY RE-EMISSION CONTROL

Noah Meeks, Research Engineer, Southern Company Services; Gary Blythe & Mandi Richardson, AECOM Corporation; Chuck Dene, Electric Power Research Institute

C1.2 MODIFICATION & TESTING OF FEED SYSTEMS FOR AMENDED SILICATES

Clifton Brown Jr., Vice President, Novinda; James Butz

C1.3 HG MGMT. ACROSS WET SCRUBBERS FOR MATS COMPLIANCE: WHERE DOES THE HG

Co-Chair Bruce Keiser, Research Fellow, Nalco; Jianwie Yua, Wayne M. Carlso & Angela Zagala Bruce Keiser

C1.4 INORGANIC SCRUBBER ADDITIVE FOR ENHANCED CAPTURE OF ELEMENTAL HG Charles Lockert, President, Breen Energy Solutions; Russ Evans, Owensboro Municipal Utilities

C1.5 MEASUREMENT OF CORROSION RATE ASSOCIATED W/ HALOGEN USE FOR HG

OXIDATION

Mandar Gadgil, AQCS Engineer, The Babcock & Wilcox Company PGG; Murray Abbott, Chem Mod LLC; Steven Feeney, Babcock & Wilcox Power Generation Group, Inc.

C1.6 CARBON SORBENT PROPERTIES FOR OPTIMAL MERCURY REDUCTION

Emma Zhou, Albemarle Corp.; Gregory Lambeth, Jon Miller

3:30PM - 5:30PM

C2. ACTIVATED CARBON - HG

and Co-Chairs

NOLTEC

Mitch Lund

Corbonxi

David Mazvck

Session Sponsor C2.1 ACTIVATED CARBON FOR MATS COMPLIANCE: GETTING THE MOST OUT OF YOUR RFP

Erica Gonzaga, Applications Engineer, Carbonxt, Inc.; Dr. David Mazyck, Heather Byrne PhD, PE, Michelle Brown PE, & Jack Drwiega PE

C2.2 ACI FOR MERCURY CONTROL: A STATUS CHECK BEFORE THE BIG MATS PLUNGE

Richard Mimna, Sr. R&D Associate, Calgon Carbon Corporation

C2.3 THE EVOLVING POWDER ACTIVATED CARBON MARKETPLACE

Mitch Lund, Chemical Engineer, Nol-Tec Systems

C2.4 ADVANCED MINING METHODS TO PRODUCE WORLD CLASS HG REMOVAL SOLUTIONS

Jerry Adler, Senior Engineer, Cabot Corporation **C2.5 NEXT GENERATION SO3 TOLERANT PACS**

Joe Wong, Chief Technology Officer, ADA-CS, LLC; Roger Cayton & Jacob Lowring

C2.6 PULVERIZED LIMESTONE & ACTIVATED CARBON SLURRIES W/ VACUCAM® EJECTOR

Charles Alack, COO/CEO, Semi-Bulk Systems; Jeff Doherty

Tuesday | February 17

7:30AM - 9:30AM C3. HG CONTROL TECHNOLOGIES

Christian Patterer& Michael Kramer

Session Sponsor C3.1 FGDPLUS - AN EFFICIENCY BOOSTER FOR OPEN SPRAY TOWER TECHNOLOGY and Co-Chairs Andreas Gruber-Waltl, Team Leader Process Development, Andritz Environmental Solutions;

Jerry Adler

C3.2 THE DYNAMIC HG CAPTURE TEST: RAPID PAC PROTOTYPING FOR ENHANCED HG CARBON SOLUTIONS Joe Wong, Chief Technology Officer, ADA Carbon Solutions; Chris Vizcaino, ADA Carbon

Solutions: Nick Lentz, University of North Dakota Joe Wong

C3.3 NON-CARBON, LIQUID SORBENT FOR HG EMISSION CONTROL IN SPRAY DRY **ABSORBERS**

Tommy Hung-Ting Chen, Lead Chemist, Nalco, an Ecolab Company; Bruce A. Keiser, Wayne M. Carlson, Brett Showalter, Jianwei Yuan & Nicholas R. Denny

CABOT C3.4 SO3 TOLERANCE OF AMENDED SILICATE MERCURY SORBENTS

Thomas K. Gale, Director of Technology Development, Novinda Corporation; James R. Butz

C3.5 DIFFERENT OPTIONS FOR SPECIFYING A MERCURY REDUCTION SYSTEM

Conner Cox, Process Engineer, United Conveyor Corporation

C4. DRY SORBENT INJECTION (DSI)

C4.1 DSI FOR HIGH LEVEL (UP TO 90%+) SO2 & MERCURY REMOVAL ON A LARGE COALFIRED UNIT EQUIPPED WITH AN ESP & FABRIC FILTER

Jon Norman, DSI Sales & Technology Manager, United Conveyor Corporation

C4.2 A DSI SYSTEM INSTALLATION AT A MIDWEST UTILITY - A LOW CAPITAL COST POLLUTANT CONTROL SOLUTION

Robert Broglio, Sr. Business Development Manager, NAES Corp.

C4.3 EXECUTION STRATEGIES FOR A FAST TRACK FLEET WIDE IMPLEMENTATION OF DSI & **ACITECHNOLOGY**

Dennis Decator, Sr Project Manager, DTE Energy; Chris Patselas, Project Manager, Black & Veatch

C4.4 SORBMIX™ TO IMPROVE MIXING FOR DRY SORBENT INJECTION APPLICATIONS Guisu Liu, Director of Technology, Mobotec LLC; Baiyun Gong, Mike Klump, Alan Chadwick & Craia Paquette

C4.5 ADVANCED CHEMISTRY MODELING FOR SO2, SO3, & HCL REMOVAL BY DSI Baiyun Gong, Combustion Modeling Manager, Mobotec LLC; Guisu Liu

C4.6 BENEFITS OF CONDITIONED AIR IN TRANSLOADING WHEN USING TRONA FOR SO2 & ACID GASES MITIGATION IN COAL FIRED UNITS FLUE GAS STREAM

Michael Brubaker, Commercial Development Manager, Natronx Technologies, LLC; Joshua Allen

C5. HG MATS COMPLIANCE

C5.1 STARTUP & SHUTDOWN CONSIDERATIONS UNDER MATS

Bruce Macdonald, Principal Scientist, SLR International; Eri Ottersburg

C5.2 MATS COMPLIANCE STRATEGIES

Stephanie Sebor, Associate, Winston & Strawn LLP

C5.3 COMPREHENSIVE TRIAL PLANNING FOR ACHIEVING EPA MATS COMPLIANCE Steve Baloga, V.P. Environmental Services, Novinda Corporation

C5.4 INNOVATIONS WITH MERCURY PROCESS MONITORING FOR MERCURY CONTROL

Andrew Mertz, Projects Engineer, Ohio Lumex Co.; Joseph Siperstein

C5.5 MERCURY LEE TESTING CASE STUDY

Jeremy Miller, Senior Project Manager, TRC; Dave Darnell, Nebraska Public Power District

5.6 KLEENSCRUB TECHNOLOGY UPDATE - WHY FGD OPERATIONS IS KEY TO HG REMEDIATION

Mark Pastore, VP Technology, EES, Inc.

10AM - 12PM

Session Sponsor

and Co-Chair

DTE Energy

Deninis Decator

1PM - 3PM

Session Sponsor and Co-Chairs



Stephanie Sebor



3:30PM - 5:30PM

Session Sponsor

and Co-Chair

ANDRITZ

Andreas

Gruber-Waltl

Co-Chair

Jonas Klingspor

C6. HG DEMONSTRATION & INSTALLATION

C6.1 DEMONSTRATION & INSTALLATION OF NOVEL MERCURY OXIDATION TECHNOLOGY Sterling Gray, Business Development Manager, AECOM; Jim B. Jarvis, Steven W., Kosler Andrew Wang

C6.2 FROM MATS HG DEMONSTRATIONS TO COMMERCIAL COMPLIANCE PROGRAMS INSTALLATION UPDATE & DEMONSTRATION RESULTS FOR PRB & LIGNITE EGU

John Pavlish, Senior Vice President & CTO, Midwest Energy Emissions Corp (ME2C); Marcus Sylvester & Jim Trettel

C6.3 HG REMOVAL IN WET SCRUBBERS & BENEFICIAL USE OF GYPSUM - A CONTRADICTION?

Andreas Gruber-Waltl, Team Leader Process Development, Andritz Energy & Environment: Michael Kramer, Dr. Harald Reissne & Christian Patterer

C6.4 EXTENDED TRIALS OF NOVINDA'S AS-HGX FOR EPA MATS MERCURY COMPLIANCE James Butz, VP of Product Management, Novinda; Clifton Brown Jr. & Stephen Baloga

C6.5 INSTALLATION OF THE GORE MERCURY CONTROL SYSTEM AT THE CAYUGA POWER PLANT

15

Jonas Klingspor, VP Business Development, AECOM; Jeff Kolde, W.L. Gore; Doug Roll, Cayuga Operating Company

C6.6 DEMONSTRATING COMPLIANCE WITH MATS

Bob Fraser, Partner, ERM; Mike Zebell

Wednesday | February 18

7:30AM - 9:30AM C7. HG CONTROL

Session Sponsor C7.1 INTEGRATING MERCURY SORBENT HX™ INTO EXISTING SORBENT INJECTION SYSTEMS and Co-Chair William Hizny, Technical Projects Manager, BASF Corporation; Conner Cox, United Conveyor Corporation: Fabien Rioult & Xiaolin Yana, BASF Corporation

E BASE

William Hizny

C7.2 THE USE OF CEMS AS PROCESS MONITORING TOOLS FOR HG COMPLIANCE

Jerry Amrhein, Manager - CEMS Services, ADA-ES, Inc.; Cody Wilson

C7.3 UNDERSTANDING ELEMENTAL HG ABSORPTION ACROSS WFGD SCRUBBERS:AN INITIAL STUDY

Nicholas Denny, Principal Chemist, Nalco, an Ecolab Company; Bruce A. Keiser & Wayne M. Carlson

Co-Chair Keith Schofield

C7.4 MERCURY RE-EMISSION RE-EXAMINED – A THERMODYNAMIC MODEL TO FOLLOW Steven Feeney, Product Line Manager - Mercury & WWT Technology, The Babcock &

Wilcox Company - Power Generation Group C7.5 HG CONTROL: A PASSIVE METHOD INVOKING HG'S NATURAL HETEROGENEOUS

PROCESSES Keith Schofield, Research Director, ChemData Research, Inc.

C7.6 REDUCING OPERATING COSTS AND RISKS OF HG CONTROL WITH NOVEL FUEL **ADDITIVES**

Constance Senior, Vice President of Technology, ADA-ES, Inc.; Greg Filippelli

10AM - 12PM

C8. HG CONTROL & ESP

Session Sponsor and Co-Chair

C8.1 TUNING ELECTRONIC PROPERTIES OF PAC FOR ENHANCED ELECTROSTATIC PRECIPITATOR PERFORMANCE

Herek Clack, Professor, University of Michigan; Eric M. Lee & Ubong Solomon, Illinois Institute of Technology; Chris Vizcaino & Joe Wong, ADA Carbon Solutions

C8.2 REDUCING REAGENT & SORBENT COSTS FOR MERCURY & PARTICULATE MATTER ▲ ALBEMARLE CONTROL FOR UNITS WITH ESPS RE

Jon Miller

David Young, Product Leader, ADA-ES, Inc; Greg Filippelli & Constance Senior

C8.3 MERCURY OXIDATION BY BROMINE ADDITION: ONE EFFECTIVE RESPONSE TO PAST **EXPERIENCE**

Murray Abbott, Manager of Technical Support, Chem-Mod LLC; Mandar Gadgil & Steve Feeney, Babcock & Wilcox Power Generation Group, Inc.

C8.4 SORBENT PRODUCTS FOR CHALLENGING APPLICATIONS

Jon Miller, Technology Manager for Mercury Control, Albemarle Corp.; Gregory Lambeth & Daryl Lipscomb

Monday | February 16

D1. ENERGY POLICY & SECURITY

D1.1 THE QUADRANNIAL ENERGY REVIEW

Mitchell Baer, Director - Office of Energy Security Analysis, US DOE

D1.2 ECONOMIC EFFECTS ON THE U.S. REFINING INDUSTRY OF EPA CLEAN AIR ACT GREENHOUSE GAS CONTROLS & POTENTIAL CARBON TAX & CAP-AND-TRADE SYSTEMS

Bill Smalling, Attorney, The Law Office of C. William Smalling

D1.3 ENERGY ROADMAP PROGRAM: A UTILITY-LOCAL GOVERNMENT PARTNERSHIP

Susan Freedman, Senior Regional Energy/Climate Planner, San Diego Association of Governments (SANDAG); Josh Brock, San Diego Gas & Electric (SDG&E)

D1.4 PROACTIVE PATENT PROSECUTION STRATEGIES IN VIEW OF POST-GRANT **CHALLENGES**

Peter Jackman, Director, Sterne, Kessler, Goldstein & Fox PLLC

D1.5 FERC APPROVED DEFINITION OF BES & ITS IMPACT TO YOUR ORGANIZATION Linda Lynch, Senior Reliability Compliance Specialist, Burns & McDonnell Engineering Company: Michael C. Johnson

1PM - 3PM

Co-Chair ENERGY

Mitchell Baer

Co-Chair Susan Freedman

D2. SUSTAINABILITY PROJECTS

D2.1 INSPIRING AMERICA'S NEXT SOCIAL ENTREPRENEURS Drew Beal, CEO, Kill the Cup

D2.2 DESIGNING FOR THE POST-CARBON ECONOMY: IT'S ZERO OR NOTHING

Eric Corey Freed, Founding Principal, organicARCHITECT

D2.3 WORKPLACE & OCCUPATIONAL SUSTAINABILITY: THINKING OUTSIDE THE BOX Bapanaiah Penugonda, Dentist/Associate Professor, NYU College of Dentistry; Katie Baron

D2.4 ENVIRONMENTAL EVALUATION OF SIX BUILDING SHEARING LAYERS FOR THE **ALLOCATION OF GREEN POINTS**

Svetlana Pushkar, Lecturer, Ariel University; Oleg Verbitsky

D2.5 OPPORTUNITIES & COSTS FOR ENERGY CONSERVATION IN THE UK BUILDING STOCK Reza Arababadi, PhD Student, ASU; Érika Mata, Angela Sasic Kalagasidis & Filip Johnsson,

Chalmers University of Technology

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Bapanaiah Penugonda

Tuesday | February 17

D3. ENERGY EFFICIENCY

7:30AM - 9:30AM

D3.1 NON-ENERGY BENEFITS(NEBS): WHERE ARE WE & WHY FO THEY MATTER SO MUCH? Lisa Skumatz, Principal, Skumatz Economic Research Associates

D3.2 BUILDING ENERGY EFFICIENCY IN CHINA

Ying Hu, Professor, School of Architecture & Fine Art, Dalian University of Technology; Yang Hu & Wenshu Fan, Nexant

D3.3 ENCOURAGING ENERGY EFFICIENT- LIGHTING QUALITY

Edward Bartholomew, Commercial Lighting Program Manager, National Grid

D3.4 DON'T LET YOUR MONEY JUST BLOW AWAY

Allen Ray, Director - Air - Gas Handling Group, ProcessBarron

D3.5 LIGHT-WEIGHT VAPOR CHAMBERS EFFECTED BY NANO-CAPILLARY PUMP COOLING

H. Paul Wang, Professor, National Cheng Kung University; H. Y. Kan, National Cheng Kung Universit; W.-K. Li, National Tsing-Hua University; James Wang, UC San Diego

D3.6 PARTNERSHIPS THAT PROMOTE ENERGY EFFICIENCY

Marta Keane, Resource Recovery Program Specialist, Will County

Co-Chairs

Lisa Skumatz

&

Allen Ray

D4. SMART GRID & ENERGY RATES 10AM - 12PM

D4.1 GRID MODERNIZATION & THE SMART UTILITY

Anthony Barazza, Grid Automation, Schneider Electric; Adam Caballero **D4.2 ELECTRIC RATE IMPACTS DUE TO ENVIRONEMENTAL REGULATIONS**

Mike Borgstadt, Manager - Business Consulting, Burns & McDonnell Engineering Co.

Co-Chair Adam Caballero **D4.3 WHAT HAPPENS DURING A COLD SNAP** Stephen Slocomb, Associate, Epsilon Associates

D4.4 MARGINAL ENERGY EMISSION RATES FOR THE EVOLVING ENERGY LANDSCAPE

Jessica Lau, Engineer, ISO New England; Peter Wong **D4.5 WHO'S CONTRIBUTING TO GRID STABILITY?**

Roger Clarke-Johnson, Western Region Manager, American Governor

D7. NATURAL GAS

D7.1 FACILITATE INVESTMENTS IN NATURAL GAS INFRASTRUCTURE - CASE STUDIES OF TWO REGION

Hua Fana, Technical Director, ICF International

D7.2 NATURAL GAS MARKET DRIVERS: IMPLICATIONS FOR POWER GENERATORS

Ken Ditzel, Managing Director, FTI Consulting

D7.3 THE SAFETY, RELIABILITY & ECONOMIC LAYERS OF NATURAL GAS CONVERSION **PROJECTS**

Aiay Kasarabada, Project Manager, Black & Veatch; Steve Williams

D7.4 COAL TO NATURAL GAS CONVERSIONS, WHAT YOU NEED TO KNOW

Joe Brown, Product Manager, Mitsubishi Hitachi Power Systems America

D7.5 ANALYZING CARBON POLICY & PRICING EFFECTS ON GLOBAL NATURAL GAS MARKETS: CONSUMERS & PRODUCERS

Hakob Avetisyan, Assistant Professor, California State University

Wednesday | February 18

Session Sponsor and Co-Chair ₽,

7:30AM - 9:30AM

BLACK & VEATCH

Ajay Kasarabada

1PM - 3PM



John Finnigan

D5. ENERGY POLICY & FINANCE

Session Sponsor D5.1 NEW UTILITY BUSINESS MODEL - NEW YORK'S REFORMING ENERGY VISION

and Co-Chair John Finnigan, Lead Counsel, Environmental Defense Fund

D5.2 DEVELOPING & IMPLEMENTING A NATIONAL ENERGY POLICY

Kenneth Skipka, Principal, RTP Environmental Asst., Inc.; Louis Theodore, Theodore Tutorials D5.3 CO2 PRICE FORECAST: PLANNING FOR FUTURE ENVIRONMENTAL REGULATIONS

Patrick Luckow, Associate, Synapse Energy Economics; Joseph Daniel, Spencer Fields, Elizabeth A. Stanton & Bruce Biewald D5.4 HOW TO SUSTAIN A BEST-IN-CLASS UTILITY WHILE IMPROVING THE BOTTOM LINE

Monte Matthews, Sr. Mgr. Disclosure & Performance, Tennessee Valley Authority D5.5 HOW TO SUSTAINABLY REDUCE YOUR CARBON FOOTPRIN WHILE INCREASING FINANCIAL PERFORMANCE

Dr. Steven Driver, Global Energy Manager, Genzyme - Sanofi

D8. CLIMATE CHANGE - RISK MANAGEMENT

D8.1 ENERGY INDUSTRY VIEW ON CLIMATE CHANGE RISK, ADAPTATION AND ECOSYSTEM RISK MANAGEMENT

Sarah Ball, Manager, Environmental Affairs, Edison Electric Institute

D8.2 MANAGING ECOSYSTEM RISK: ENGINEERING ECO-SOLUTIONS TO CLIMATE CHANGE **ADAPTATION**

John B. Christopher, Water/Wastewater Senior Project Manager, Louis Berger

D8.3 CLIMATE CHANGE IMPACTS TO ELECTRICAL DISTRIBUTION NETWORKS: MANAGING RISKS. ENHANCING RESILIENCE

Claire Bonham-Carter, Principal, AECOM: Allan Klindworth & Chee Chan

D8.4 IRRATIONAL GREEN: REVEALING TODAY'S GREAT, GREEN DECEPTIONS Randy Hughes, Manager - Planning & Rates, Independence Power & Light

D8.5 AMMONIA FUEL FROM RENEWABLE-SOURCE ELECTRICITY, WATER, & AIR: TECH **OPTIONS & ECONOMICS MODELING**

Bill Leighty, Director, The Leighty Foundation

10AM - 12PM

Session Sponsor and Co-Chair



Sarah Ball

Co-Chair Bill Leighty

D6. ENERGY EFFICIENCY & DATA

Session Sponsor D6.1 BIG DATA & EFFICIENT ENERGY PRICES

and Co-Chair Mark DeSantis, CEO, kWantera

D6.2 ENERGY DATA ACCELERATOR THE STAKEHOLDER ENGAGEMENT

Azizan Aziz, Assistant Professor & Senior Research Architect, Carnegie Mellon University, Flore Marion & Erica Cochran

kWantera

D6.3 SECURE FILE TRANSFER VIA SATELLITE OR MOBILE

Brian Henger, Enterprise Account Manager, Globalscape; Elizabeth Laurin Mark DeSantis

D6.4 THAT'S MY IDEA: CLEAN ENERGY INVENTORSHIP DISPUTES & HOW TO AVOID THEM

Margaret Welsh, Associate, Sughrue Mion, PLLC

Co-Chair D6.5 UTILITY SMART METERS + INTELLIGENT BUILDING TECHNOLOGY: A LOOK TO THE FUTURE

Azizan Aziz OF CONNECTED BUILDINGS

Joseph Aamidor, Senior Product Manager, Lucid

D9. ENERGY TECHNOLOGY

D9.1 COMMERCIALIZED; INDUSTRIAL SCALE PLASMA GASIFICATION TECHNOLOGY

Allison Yeckel, Sales Engineer, Westinghouse Plasma Corp.; Bruce Leonard, Richard Fish & Walter Howard

D9.2 OPPORTUNITIES & CHALLENGES OF INDUSTRY-WIDE ADOPTION OF COGENERATION IN NEW & OPERATING OIL SANDS FACILITIES

Experience Nduagu, Postdoctoral Scholar, University of Calgary; Dr. Ian D. Gates

D9.3 TWENTY-FIVE YEARS OF FUEL IMPACT ANALYSES - WHAT HAVE WE LEARNED, & WHERE ARE WE GOING?

Una Nowling, Technology Lead - Fuels, Black & Veatch

D9.4 TRENDS IN ENERGY & CARBON MANAGEMENT AT SEA PORTS

Matthew Wartian, Regional Global Practice Manager, Burns & McDonnell; Eric Putnam & Lit Chan, ENVIRON

1PM - 3PM

Session Sponsor and Co-Chairs



Una Nowlina

Co-Chair

Paul Grod



Monday | February 16

1PM - 3PM

E1. CONTROL TECHNOLOGIES

E1.1 AIR QUALITY CONTROL TECHNOLOGIES FOR COMBUSTION TURBINES - COMBINED

CYCLE & SIMPLE CYCLE CONFIGURATIONS Chris Wedig, Senior AQCS Specialist, CB&I

E1.2 CONTROL PARTICLE SIZE, CONTROL YOUR PROCESS

Jeff DeNigris, Sales Mgr, Malvern Instruments

E1.3 ADVANCEMENTS IN SEMI-DRY SCRUBBERS

Jeromy Jones, AQCS Manager, Burns & McDonnell

Co-Chair Chris Wedia E1.4 100% AVAILABILITY - THE HOLY GRAIL OF AQCS DESIGN

Chris Tovee, Senior Engineer, Hatch; Dr. Michael Trovant **E1.5 HOW TO MAKE POLLUTION CONTROL PROFITABLE**

Jerrold Radway, Chairman & Chief Technical Officer, ClearChem LLC; Shuman Moore

E1.6 THE ROLE OF MICROGRIDS IN THE SMART CITY

Terry Mohn, CEO, General MicroGrids, Inc

3:30PM - 5:30PM **E2. ESP**

Co-Chair

Jim Daniel

Session Sponsor E2.1 CORONA DEAD ZONES HURT ELECTROSTATIC PRECIPITATOR PERFORMANCE

and Co-Chair John Knapik, ESP Applications Engineer, Babcock & Wilcox Preciptech

E2.2 POWDER-SORBENT ALTERNATIVES TO SO3 FOR ESP CONDITIONING

Thomas K. Gale, Director of Technology Development, Novinda Corporation; James R. Butz

E2.3 WHY SATISFYING ICAC EP-7 CRITERIA ALONE IS NOT ENOUGH FOR OPTIMUM ESP PERFORMANCE

Pramodh Jim Daniel, Senior Engineer, Alden; Gary Grieco, Air Consulting Associates Nijhawan

E2.4 WET ESP CONTINUOUS WATER WASHING ADVANCES FOR LOW GRADE MATERIALS OF

ELECTRODES

Anthony Silva, Advisory Engineer, Babcock & Wilcox; Tommy Liu

E2.5 NOVEL RECIRCULATION SCRUBBER FOR BART COMPLIANCE

Pramodh Nijhawan, Executive Vice President, Industrial Accessories Company

Tuesday | February 17

7:30AM - 9:30AM E3. PM, OPACITY & VISIBILITY

Session Sponsor E3.1 CALIBRATION OF LIGHT SCATTER PM-CEMS TO SATISFY PS-11 ON WET STACKS IN and Co-Chair COAL FIRED EGUS

William Averdieck, President, PCME Inc: Ed McCall

E3.2 MATS RULE: HIGH-SENSITIVITY PM MEASUREMENT EVEN AT THE LOWEST **CONCENTRATIONS OF DUST**

Richard Hovan, Director - Environmental Business Development, DURAG GROUP; Lori McCloud

E3.3 PM CEM'S TECHNOLOGIES & BEST PRACTICES

Andy Rudolph, Product Manager, SICK Engineering GmbH

E3.4 HOW THE USE OF BAG LEAK DETECTORS CAN REDUCE YOUR PM AND POSITIVELY IMPACT YOUR BOTTOM LINE

John Brown, Sales Manager, PCME Inc.

Co-Chair Richard Hovan

William

Averdieck

E4. 111(D)

E4.1 SMALL UTILITY PLANNING FOR EPA'S 111(D) RULE

Eric Hiser, Partner, Jorden Bischoff & Hiser, PLC

E4.2 THE MATS CONUNDRUM - HOW DOES SECTION 111(D) IMPACT OLD SMOKEY POWER Peter Belmonte, Partner, ERM

E4.3 COMPLIANCE STRATEGIES FOR PROPOSED GREENHOUSE GAS RULES IN EXISTING **POWER PLANTS**

Edward Malley, Vice President, TRC Companies, Inc.; Ryan Bliss, Greg Coleman & Samantha Motley

E4.4 THE EPA CLEAN POWER PLAN & EMISSION QUANTIFICATION APPROACHES

David Sumi, Principal, The Cadmus Group, Inc.; Kate Swayne Wilson & Kimberlee Rankin

E4.5 CLEAN POWER PLAN: CRITICAL ISSUES FACING POWER GENERATION COMPANIES &

Robert Fraser, Partner, ERM, INC; Julie Ross & David Shotts

10AM - 12PM

Session Sponsor and Co-Chair



Peter Belemonte

Co-Chair Davis Sumi

E5. SO2, SO3 & ADDITIVES

E5.1 THE BENEFITS OF HIGH REACTIVITY HYDRATED LIME IN A CIRCULATING DRY SCRUBBER Curt Biehn, Manager - Marketing & Technical Services, Mississippi Lime Company; Mark DeGenova

E5.2 SUCCESSFUL OPERATION OF FLUE GAS HUMIDIFICATION/COOLING USING SPRAY NOZZLES UPSTREAM OF DRY SORBENT INJECTION (DSI)

Robert Van Durme, P.E., Key Account Manager, Lechler Inc.; Ashwin Patni, Lechler Inc.; Leon Lenertz, P.E., Xcel Energy

E5.3 BENEFICIATION OF HIGH SODIUM FLY ASH

Michael Atwell, Market Development Manager, Solvay Chemicals

E5.4 SULFUR DIOXIDE MITIGATION USING HYDRATED LIME DSI & HUMIDIFICATION Carl Laird, Sr.Technical Specialist - FGT & Glass Markets, Carmeuse Lime and Stone

E5.5 APPLICATION & BENEFITS OF SO3 REMOVAL UPSTREAM OF THE LJUNGSTROM® AIR PREHEATER

Gus Shearer, Product Director, ARVOS Inc. LJUNGSTROM Division; Sterling M. Gray, PE, **AECOM Corporation**

E5.6 DRY SORBENT INJECTION HISTORY & FUTURE APPLICATION

Keith Day, Business Development Manager, Nol-Tec Systems

Session Sponsor

1PM - 3PM

and Co-Chairs



Curt Biehn



Michael Atwell

3:30PM - 5:30PM

Co-Chair

Steve Piche

E6. NOX CONTROL

E6.1 IMPROVED NOX REDUCTIONS IN A COMBUSTION OPTIMIZATION SYSTEM USING A **NOVEL NEURAL NETWORK TRAINING ALGORITHM**

Steve Piche, Director of Research & Development, NeuCo; Daxhang Gu & Fred Pickard E6.2 NOVEL LOW NOX EMISSIONS SOLUTIONS TO ACHIEVE 20 PPM NOX

Richard Conn, Sr. Director of Technology, Sunco-International Inc. Co. Ltd.; Jeff Shan, Sunco-International Inc.; Denis Fallon, Celanese Corp.

E6.3 ELEVATED NOX REDUCTION & COMBUSTION OPTIMIZATION FOR COAL-FIRED UTILITY **BOILERS BY IMPROVING FURNACE MIXING**

Mike Klump, Director of Plant Optimization, Mobotec LLC; Guisu Liu, Baiyun Gona, Joe Aletto, Chris Clemmer, Vivek Savarianadam & Pat Crotty

E6.4 LOTOX™ - NOVEL NOX CONTROL SOLUTION

Peter Studer, Chemical & Environmental Industry Program Manager, LINDE; Naresh J. Suchak, Monica Caldwell, Frank Fitch & Steve Finley, LINDE; Bob Ferrell, AECOM

E6.5 LOW NOX COMBUSTION W/NOVEL ANTI-CORROSION SYS. FOR WALL-FIRED BOILERS Jeff Shan, President, Sunco International Inc. Co. Ltd.; Richard Conn

E6.6 DIRECT MEASUREMENT & MODELING OF SULFURIC ACID CONCENTRATIONS IN COAL-FIRED POWER PLANT FLUE GAS

Brian Adair, Senior Chemical Engineer, Geosyntec Consultants, Inc; Dr. Brian Adair, Dr. Curtis Laush & Darwan Pursoo 201

Wednesday | February 18

7:30AM - 9:50AM Session Sponsor and Co-Chair

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GRAYMONT

Shiaw Tseng

E7. SCR & CONTROL TECHNOLOGIES

E7.1 DEVELOPMENT OF NOVEL SCR-DENOX CATALYSTS - REVIEWING THE RESULTS OF RECENT EUROPEAN RESEARCH PROJECTS

Barna Heidel, Head of Department, Institute of Combustion & Power Plant Technology, University of Stuttgart; Tobias Schwämmle & Günter Scheffknecht

E7.2 INCREASES IN NOX EMISSIONS IN COAL-FIRED SCR-EQUIPPED ELECTRIC GENERATING UNITS

Tom McNevin, Research Scientist, NJDEP

E7.3 TECHNICAL SCR DEVELOPMENT FOR ENHANCED & COST-COMPETITIVE PERFORMANCE

Larry Czarnecki, Principle Process Engineer, Alstom Power; Paulo Oliveira E7.4 HOT SCR SYSTEMS FOR LARGE FRAME SIMPLE CYCLE GAS TURBINES

Robert McGinty, Senior Product Manager - Gas Turbine & Industrial SCR Systems, Mitsubishi

Hitachi Power Systems Americas, Inc.; Rand Drake

Co-Chair Clayton Erickson E7.5 DELTA WING® MIXING SYSTEM RETROFIT FOR IMPROVED SCR PERFORMANCE

Clayton Erickson, VP Environmental Technology & Products, Babcock Power Environmental; Roderick Beittel, Riley Power Inc

E7.6 UPDATES ON THE PERFORMANCE OF SELECTED LIME-BASED CIRCULATION DRY SCRUBBERS

Shiaw Tseng, Marketing & Technical Manager, Graymont

E7.7 SO2 CONTROL USING DRY SORBENT INJECTION TECHNOLOGY WITH HYDRATED LIME

Jerry Hunt, Specialist Flue Gas Treatment, Lhoist North America; Jim C. Dickerman

Monday | February 16

F1. RENEWABLE ENERGY MARKETS

F1.1 BEST PRACTICES FOR VOLUNTARY RENEWABLE ENERGY PROGRAMS

Robin Quarrier, Chief Counsel, Center for Resource Solutions; Sarah Busch

F1.2 INDUSTRY TRENDS IN RENEWABLE ENERGY SYSTEMS

Joseph DiMatteo, Managing Partner, Engineered Solar

F1.3 STRUCTURES AND STRATEGIES FOR CORPORATE CLEAN POWER PROCUREMENT

Joshua Bushinsky, Associate - Energy & Infrastructure Finance, Wilson Sonsini Goodrich & Rosati

F1.4 THE IMPORTANCE OF WORKING GREEN WHILE GENERATING RENEWABLE CLEAN ENERGY

Paul Raiford, Director of Energy Services, Williams Scotsman

F1.5 SUSTAINABILITY & EV CHARGING - YOU CAN HAVE BOTH IN A PAINLESS MANNER WHILE ADDING REAL VALUE TO YOUR ASSET

Desmond Wheatley, President & CEO, Envision Solar International

1PM - 3PM

Co-Chair Joseph DiMatteo

F2. DISTRIBUTED GENERATION

F2.1 MICROTURBINE DISTRIBUTED GENERATION & PERMITTING UPDATEPeter Moore, Principal Engineer, Yorke Engineering; Steve Acevedo, Regatta Solutions **F2.2 ROI OF DISTRIBUTED POWER GENERATION VS. TRADITIONAL CENTRALIZED PRODUCTION**

Brian Korgaonkar, Sr. Product Manager, Enphase Energy

F2.3 RUGGED & RELIABLE MICROGRID SYSTEMS FOR TOUGH ENVIRONMENTS
Frank Pendleton, Program Manager, MRIGlobal; Sayan Chakraborti & Dr. Martin Smith

F2.4 ENERGY STORAGE USING HYDROGEN FOR CLEAN DISTRIBUTED POWER Susan Schoenung, President, Longitude 122 West, Inc.

F2.5 IMPLEMENTATION OPTIONS FOR MEETING NET METERING POLICY OBJECTIVESJoseph Daniel, Associate, Synapse Energy Economics; Dr. Tommy Vitolo

3:30PM - 5:30PM

Session Sponsor and Co-Chairs



Peter Moore



Brian Korgaonkar

Tuesday | February 17

F3. RENEWABLE DEVELOPMENT ANALYSIS

F3.1 PROMOTING HYDROPOWER DEVELOPMENT THROUGH PERMITTING OPPORTUNITIES Sarah Howard, Senior Environmental Scientist, Black & Veatch

F3.2 OPTIMIZING THE LEVEL OF RENEWABLE PENETRATION IN A HYBRID SYSTEM Peter Lilienthal, CEO, HOMER Energy

F3.3 A UNIQUE ASSESSMENT PROCESS IN CANADA'S YUKON - DOES IT WORK? Ken McKinnon, Chair, Yukon Environmental & Socio-Economic Assessment Board

F3.4 "BANKABLE" RENEWABLE ENERGY PROJECTS IN ASIA: POTENTIAL & CHALLENGES William Byun, Managing Director, Asia Renewables; William I.Y. Byun

F3.5 USING SOCIAL MEDIA IN YOUR PUBLIC OUTREACH CAMPAIGNBrian Lee, President, Revelation PR, Advertising & Social Media

F3.6 THREE CENT PER KWH POWER FROM SPACE BY 2023

Keith Henson, Retired, L5 Society

F3.7 THE EFFECT OF A ROOF GRASS ON THE THERMAL PERFORMANCE OF A HOUSE IN A HOT-ARID REGION

Nasser Alhemiddi, Professor, King Saud University

7:30AM - 9:30AM

Session Sponsor and Co-Chair



Sarah Howard



10AM - 12PM

Session Sponsor and Co-Chair

EMPS

John Kina

Co-Chair Valentino Tiangco

1PM - 3PM

Co-Chairs

F5. SOLAR & WIND

F5.1 VALUE OF SOLAR PROGRAM DESIGN Joyce McLaren Sr., Market & Policy Analyst, National Renewable Energy Laboratory

F5.2 THE NEW WAVE OF SOLAR: AN END-TO-END SOLUTION

Ed Feo, COO, Coronal

F5.3 COMBINED CSP & WATER TREATMENT SYSTEM Oguz Capan, CEO & Chief Tech. Officer, HITTITE Solar

F5.4 WHITE NOSE SYNDROME: IMPLICATIONS FOR WIND ENERGY DEVELOPMENT

F4. RENEWABLE PROJECT DEVELOPMENT

John King, Principal, Environmental Management & Planning Solutions, Inc. F4.2 SMUD COMMUNITY RENEWABLE ENERGY DEPLOYMENT (CRED) PROJECTS

Katrina Prutzman, Assistant Director - System Design, UGE; Sarah Newman

F4.5 REGULATORY & PERMITTING INFORMATION DESKTOP (RAPID) TOOLKIT

F4.4 MILENA-OLGA: MOST EFFICIENT ENERGY FROM WASTE

Salvador Bezos, Director, Sterne, Kessler, Goldstein & Fox

Aaron Levine, Legal & Regulatory Analyst, NREL; Katherine Young

F4.1 SITING ENERGY PROJECTS ON FEDERAL LANDS - OVERCOMING CHALLENGES

Valentino Tiangco, Biomass Program Manager, Sacramento Municipal Utility District

Jan-Willem Konemann, Sales Manager - Renewable Technology, Royal Dahlman

F4.6 DEVELOPING ROBUST PATENT PORTFOLIOS WHILE NAVIGATING PATENT THICKETS

F4.3 BIG DATA MEETS THE MICROGRID -- THE FUTURE OF RENEWABLE ENERGY SYSTEM DESIGN

Ed Shadrick, Senior Ecologist, Black & Veatch; Doug Timpe

F5.5 CASE STUDY: ENVISION STEPPING UP SUSTAINABILITY AS YOU NEGOTIATE WINDS OF Oauz Capan CHANGE

& Doug Dietrich, Program Manager - Envision Sustainable Infrastructure, Burns & McDonnell; Doug Dietrich

Robert Healy, Burns & McDonnell; TBD, Portland General Electric F5.6 A GIS MODEL FOR DETERMINING LOCATIONS OF SOLAR VORTEX (SOV) POWER GENERATION FACILITIES

Amy Moore, Ph.D. Student, Georgia Institute of Technology; Dr. Michael O. Rodges & Dr.

Yanzhi Xu

3:30PM - 5;:30PM F6. SOLAR & PV

F6.1 FLAT-PANEL SOLAR COGENERATION FOR COMMERCIAL ROOFTOPS

Arun Gupta, Founder and CEO, Skyven Technologies, LLC

F6.2 ROOFTOP SOLAR VS ELECTRIC UTILITIES - DAVID BATTLES GOLIATH

Co-Chair Greg Odegard, Principal, GO Global Environmental Arun Gupta

F6.3 VALUE OF SOLAR: PROGRAM DESIGN

Joyce McLaren, Sr. Energy Analyst, National Renewable Energy Laboratory; Karlynn Cory,

NREL; Mike Taylor, John Sterling, Ted Davidovich & Miriam Makhyoun, SEPA

F6.4 ANALYZING PV SYSTEM EFFECTS ON LOCATIONAL MARGINAL PRICES (LMPS) &

TRANSMISSION LOSSES

Mesude Bayrakci, PhD Candidate, The Pennsylvania State University; Jeffrey R. S. Brownson

& Seth A. Blumsack

F6.5 PV HOUSE ENERGY SYSTEM APPRAISALS (VISUAL LIBRARY)

Dr. Adel El Shahat, Assistant Professor, Suez University & University of Illinois

F7. COMMUNITY SOLAR

F7.1 COMMUNITY SOLAR SESSION

John Nangle, Senior Engineer, National Renewable Energy Laboratory; Joyce McLauren

F7.2 SHARED/COMMUNITY SOLAR: POLICY & REGULATORY CONSIDERATIONS

Joyce McLaren Sr. Market & Policy Analyst, National Renewable Energy Laboratory

F7.3 THE RISKS AND REWARDS OF COMMUNITY SOLAR GARDENS

Emily Artale, Principal Engineer, Lotus Engineering and Sustainability, LLC

F7.4COMMUNITY SOLAR PROJECT DEVELOPOMENT

Tom Hunt, Director of Research & Government Affairs, Clean Energy Collective

F7.5 AB 2188: IMPLEMENTATION OF THE CALIFORNIA SOLAR RIGHTS ACT AT THE LOCAL LEVEL

Joe Kaatz, Staff Attorney, Energy Policy Initiatives Center; Scott Anders

Wednesday | February 18

7:30AM - 9:30AM

Session Sponsor and Co-Chairs

∷NREL

John Nangle & Joyce McLaren

10AM - 12PM

Co-Chairs

Dee Strand

&

Travis Starns

F8. BATTERIES & STORAGE F8.1 ENERGY STORAGE & CALIFORNIA BILL 2514

Alexander Schneider, Intern, Leidos Inc.; Sean McPherson

F8.2 DEVELOPMENT OF LITHIUM ION BATTERY MATERIALS FOR GRID APPLICATIONS

Dee Strand, CSO, Wildcat Discovery Technologies

F8.3 PLANNING & OPERATIONAL STRATEGY OF A LI-ION BATTERY POWERED BASE STATION

Sungwoo Bae, Assitant Professor / PhD, Yeungnam University; Sung-Yul Kim, Keimyung University

F8.4 INTEGRATING LIQUID AIR ENERGY STORAGE (LAES) TECHNOLOGY WITHIN INDUSTRY TO PROVIDE OPERATIONAL FLEX

Travis Starns, General Manager- Projects Unit, ADA-ES, Inc.; Cameron Martin, Ron Hanson, Jon Lagarenne, ADA-ES, Inc.; Matthew Barnett, Highview Power Storage

F8.5 UTILIZING MOLTEN SALT THERMAL STORAGE AT THERMAL POWER PLANTS TO REDUCE **GHG EMISSIONS**

Justin Raade, CEO, Halotechnics, Inc.; Travis Starns, Cam Martin, Ron Hanson & Jon Lagarenne, ADA-ES

F8.6 THE POTENTIAL OF GLASS AS HYDROGEN STORAGE MATERIAL

Ronald Meyer, Ph.D. Student, BAM Federal Institute for Materials Research and Testing; Christian Groeschl & Dr. Kai Holtappels, BAM; Dan Eliezer, C.EN Stand for Clean Energy

F8.7 AFFORDABLE FLYWHEEL ELECTRICITY STORAGE CHANGES EVERYTHING

Darin Olson, CTO, QuinteQ Energy Storage; Joris Benninga, Paul Vosbeek & Matthew Ross

1PM - 3:00PM

F9. RENEWABLE ENERGY

F9.1 RENEWABLE ENERGY FROM FOOD WASTE: A PRACTICAL CASE

Laetitia d'Ursel, Business Development Manager, Waterleau

F9.2 FERC ORDER 1000 ENCOURAGES RENEWABLE ENERGY

Bijoy Chatt, Director - Energy, Navigant Consulting Inc.

F9.3 WORLD'S ONLY HYBRID ANAEROBIC DIGESTION SYSTEM THAT EFFICIENTLY & **EFFECTIVELY PROCESSES MIXED WASTE**

Shane Chrapko, CEO, Himark BioGas Inc.

F9.4 DEVELOPING A MODEL TO SELECT THE BEST SITES TO INSTALL WIND FARMS Nazanin Naderi, Phd candidate & Instructor, Texas Tech University; Dr.Milton Smith

F9.5 HIGH SPEED MICRO-TURBINE MODELING & CONTROL FOR MICRO GRIDS **APPLICATIONS**

Dr. Adel El Shahat, Assistant Professor, Suez University & University of Illinois

Co-Chair Bijoy Chatt



Monday | February 16

1PM - 3PM

G1. DECOMISSIONING OF POWER PLANTS

G1.1 LESSONS LEARNED FROM THE PREPARATION OF ABATEMENT, DEMOLITION, PLANT ASSET VALUATION, AND ENVIRONMENTAL REGULATED MATERIALS COST ESTIMATES TO SUPPORT THE RETIREMENT OF THREE COAL-FIRED POWER GENERATION STATIONS Jerry Archer, D&D/Repurposina Initiative Leader, Amec Foster Wheeler Environment &

Infrastructure, Inc; Keith D. Welcher, Decommissioning Program Manager, Consumers Energy G1.2 THE END OF LIFE: COAL-FIRED POWER PLANT CLOSURE FACTORS & IMPLEMENTATION

Jennifer Cave, Partner, Bingham Greenebaum Doll LLP; Jeffery L. Pope. PE, Burns &

McDonnell Engineering Co., Inc.

Co-Chairs Jeffery Pope &

G1.3 PLANNING FOR CLOSURE: ASH PONDS, LANDFILLS & COAL PILES

Jeffery Pope, Manager - Facility Decommissioning & Demolition Services, Burns & Jennifer Cave McDonnell Engineering Co., Inc.

G1.4 PLANT DECOMMISSIONING - A MASTER PLAN FOR ENSURING MAXIMUM RETURN &

MINIMUM LIABILITIES

Jeff Jaros, Sr. Vice President, NTH Consultants, Ltd.; Frank Johnson, R.E. Warner &

Associates, Inc.; Doug Hartman, FirstEnergy Corporation

G4. EHS & RISK MANAGEMENT

G4.1 EHS RISK MANAGEMENT & COMPLIANCE FOR OPERATIONAL EXCELLENCE

Denise Wecker-Seipke, EHS Technical Manager, BSI; Carl Mead

G4.2 APPS & BEST PRACTICES TO MANAGE COMPLIANCE

Sameer Vyas, Partner, Huco Consulting; Meredith Foggin

G4.3 BRIEF SUMMARY ON REGULATORY CHANGE MGMT - ENVIRONMENTAL HEALTH &

Ed Sattar, CEO, 360factors

G4.4 HIGH SPEED. HIGH RESOLUTION METHANE MAPPING

Michael Gaura, Marketing Manager, LI-COR Biosciences; George Burba

G4.5 RISK MANAGEMENT & FIRE PREVENTION BY CREATING & MAINTAINING AN ALWAYS-ON REDUCED-OXYGEN (HYPOXIC) ENVIRONMENT

Cory Bryars, Program Manager, ZeroBurn

10AM - 12PM

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Ed Sattar

Co-Chair Sameer Vyas

3:30PM - 5:30PM

G2. POWER PLANT & BOILER OPTIMIZATION

G2.1 OPTIMIZING FOAM CONTROL FOR WET FLUE GAS DESULPHURIZATION SYSTEMS

Kristin Glikbara, Associate Process Engineer, Burns & McDonnell Engineering Company, Inc.; Paul N. Dyer & Paul T. Brandt, Burns & McDonnell; Misty Worcester, Minnesota Power G2.2 OPTIMIZATION OF FOSSIL FUEL FIRED BOILERS WITH VIDEO-BASED THERMOGRAPHY

Roland Zepeck, Managing Director, DURAG; Eagarat Chaiyarith, Processplus Company Limited: Maurizio Dal Cin. Power Generation Systems

Co-Chairs

Roland Zepeck & Yousef Haseli

G2.3 IMPROVE HEAT RATE & ENHANCE OPERATIONAL FLEXIBILITY THROUGH SOOTBLOWING OPTIMIZATION AT LA CYGNE UNIT 1

Neel Parikh, Sr. Engineer, Siemens Energy, Inc.; Jim Stewart & Kenneth Luebbert, KCP&L

G2.4 BURNER AIR & FUEL MEASUREMENT & CONTROL FOR COMBUSTION OPTIMIZATION

David Earley, President, Combustion Technologies Corporation **G2.5 THERMODYNAMIC OPTIMIZATION OF POWER PLANTS**

Yousef Haseli, Visiting Assistant Professor, Western New England University

G2.6 RE-ENGINEERING COAL-FIRED POWER PLANTS TO MEET EPA REGULATIONS

Keith Moore, President, Castle-Light Energy Corp.

G5. REMEDIATION, ECO. DESIGN & MITIGATION

G5.1 A FRAMEWORK FOR ECOLOGICAL RE-USE OF DISTURBED ECOSYSTEMS

Mark S. Laska, Ph.D., Founder & CEO, Great Ecology

G5.2 A GREENER SHADE OF BROWNFIELDS - A CORPORATE PERSPECTIVE

Jane Anderson, Strategy Advisor, Chevron Environmental Management Company

G5.3 A CASE STUDY OF WETLAND MITIGATION IN A HEAVILY INDUSTRIALIZED WATERFRONT

Brian Kellmann, Wetlands Project Manager, Kinder Morgan; Mark S. Laska, Ph.D., Great

G5.4 PRIVATE CAPITAL INVESTMENT IN LARGE SCALE RESTORATION

Adam Davis, Partner, Ecosystem Investment Partners

G5.5 RESTORATION OF IMPAIRED ECOSYSTEMS: AN OUNCE OF PREVENTION OR A POUND OF CURE?

Timothy Hoelzle, VP Technical Services, Great Ecology; Hooper, Larson & Farag, US Geological Survey; Hull, Intrinsik Env. Sciences; Clements, CO State Univ.; Stahl, Dupont; Stauber, CSIRO; Kaputska, LK Consultancy; Luoma, Univ. CA Davis; Univ. Ruhr, South FL; Wagner, Chevron Energy Tech. Co.; Glomb, USDOI

1PM - 3PM Session Sponsor and Co-Chair



Mark Laska

Tuesday | February 17

7:30AM - 9:30AM G3. EHS & EMIS

G3.1 A TECHNOLOGY-DRIVEN, SYSTEMS APPROACH TO MANAGING EHS PROGRAMS

Joseph Tell, Managing Partner, Tellevate

G3.2 IMPROVING PERFORMANCE BY LEVERAGING AUDIT INFORMATION TECHNOLOGY

Evan Fitzgerald, Principal, Kestrel Management Services

Co-Chairs Nick Steinke &

David Gloski

G3.3 MANAGING RISK WITH AN ENVIRONMENTAL AUDIT PROGRAM Nick Steinke, Principal, Tellevate

G3.4 AUTOMATING EHS PROCESSES WITH SOFTWARE

John Easton, Director - Product Management, Medgate, Inc.

G3.5 TOP 5 SIGNS TO REPLACE SPREADSHEETS

John Niemoller, President, Perillon Software; James Jensen

G3.6 SAAS AUGMENTS EXCEL FOR EMISSION CALCULATIONS

David Gloski, President, xOverTime Inc.: Don Ahearn

G6. OPERATIONS & OPTIMIZATION

G6.1 OPERATIONAL IMPROVEMENTS WITH HIGH REACTIVITY HYDRATED LIME DSI

Pat Mongoven, Business Development Manager, Mississippi Lime; Curt Biehn G6.2 THE APPLICATION OF FUEL ADDITIVES TO IMPROVE ESP PERFORMANCE

Paul Farber, Principal, P. Farber & Associates; Pedro Bardessi & Carlos Rojas, AES Gener G6.3 INTEGRATING ADAIR-MIXER™ TECHNOLOGY TO OPTIMIZE SYSTEM PERFORMANCE WITH ACI & DSI APPLICATIONS

Elizabeth Morley, AQC Process Engineer, ADA-ES, Inc.; Travis Starns & Connie Senior, ADA-ES, Inc.: Dave Dorste, Blender Products

G6.4 BOILER OPTIMIZATION & MATS COMPLIANCE TESTING USING DELTA CO/O2 EXTRACTIVE MONITORING SYSTEMS

Nicholas Ferri, Co-Owner, Combustion Technologies Corporation

G6.5 TRULY OPTIMIZED OPERATIONS: UNIFYING THE STRATEGIC PLANNING PROCESSES Steve Podesta, Project Manager, Black & Veatch

G6.6 OPERATIONS CONUNDRUM: WHEN SHOULD UTILITIES CONSIDER OUTSOURCING PLANT

Douglas Machon, Director - Business Development, NAES Corporation

3:30PM - 5:30PM

Session Sponsor and Co-Chair



Steve Podesta

Co-Chair Paul Farber

Wednesday | February 18

7:30AM - 9:30AM G7. COMPLIANCE TECHNOLOGIES & STRATEGIES

Session Sponsor and Co-Chair

DURAG

GROUP Richard Hovan

Co-Chair Renee Keys **G7.1 PERMITTING A NEW UNIT WITH "EYES WIDE OPEN"**

Renée Keys, Senior Environmental Analyst, Entergy Services, Inc.; Deborah Saxton, CB&I Environmental & Infrastructure

G7.2 MODERN MODULAR DESIGNED ENVIRONMENTAL & PROCESS DATA MGMT. SYSTEMS Richard Hovan, Director - Environmental Business Development, DURAG; David Triebel

G7.3 A NEW STRAP-ON SENSOR SYSTEM FOR MEASURING REAGENT MASS FLOW RATES IN PIPING FOR DRY SORBENT INJECTION & ACTIVATED CARBON INJECTION

John Stencel, President, Tribo Flow Separations; A. Ghasemi, Tribo Flow Separation; D. Herri, K. Chen & G. Chena, University of Kentucky; C. Lockert, Breen Energy Solutions

G7.4 IS THE F-WORD KILLING YOUR ORGANIZATION?

Dr. Maria Church, CEO, Corporate Leadership Solutions

G7.5 DIFFERENT FINANCIAL PERFORMANCE RESPONDING TO CORPORATE SOCIAL RESPONSIBILITY

Xiping Pan, Student, China University of Geosciences; Jinghua Sha

G7.6 TBD

American Greener Technologies

10AM - 12PM

Co-Chairs

Eitidal

Al-Bassam

&

Brian

MacDonald

G8. OPERATIONS & MANAGEMENT

G8.1 ROADMAP TO SITING, PERMITTING, & OPERATING FACILITIES IN SAGE GROUSE **HABITAT**

David Batts, Principal, EMPSi - Environmental Management & Planning Solutions, Inc.

G8.2 IMPLICATIONS OF FOAMING IN WFGD OPERATION & DESIGN

Jeffery Russell, Fossil Power Director, MPR Associates, Inc.; Eric ten Siethoff

G8.3 OPERATIONAL PLANS TO REDUCE ELECTROMAGNETIC FIELDS IN AN INDOOR ENVIRONMENT

Eitidal Al-Bassam, Research Scientist, Kuwait Institute for Scientific Research

G8.4 LEADING THOUGH CHANGE: DISMANTLING SILOS IN FACILITY MANAGEMENT Brian MacDonald, Senor Project Manager, Tetra Tech; Colby Hoefar

G8.5 THE IMPORTANCE OF FLEXIBLE SPACE SOLUTIONS FOR ENERGY COMPANIES OF ALL **SHAPES & SIZES**

Paul Raiford, Director of Energy Services, Williams Scotsman

G8.6 THE FUNDAMENTALS OF INTERNAL CONTROL

Linda Lynch, Senior Reliability Compliance Specialist, Burns & McDonnell; Ingrid D. Rayo

G8.7 MANAGING CULTURE FOR PERFORMANCE & SAFETY - A UTILITY CASE STUDY

Kevin Smith, Partner / Sr. Consultant, Ephektiv; Martin Marquardt, Tosan

Monday | February 16

H1. CARBON FOOTPRINT & GREEN PROJECTS

H1.1 STRATEGIES TO COMPLY WITH NEW FINANCIAL REGULATIONS IN THE GHG CONTRAINED MARKET

Nedia Miller, Founder, MILLER, CTA

H1.2 ALTERNATIVE SOLUTIONS FOR LOWERING CO2 EMISSIONS FROM FOSSIL FUEL EGUS

Tim Donnelly, Senior Project Manager, POWER Engineers, Inc.; Gary Baranowski

H1.3 FIVE YEARS OF OPERATING EXPERIENCE WITH DRYFINING FUEL ENHANCEMENT **PROCESS**

Sandra Broekema, Manager, Business Development, Great River Energy: Charlie Bullinger, Great River Energy; Nenad Sarunac, Power System Associates

H1.4 THE EFFECTS OF POLLUTION & CLIMATE CHANGE ON HUMAN HEALTH

Katie Baron, Dental Student, NYU College of Dentistry; Bapanaiah Penugonda

H1.5 SUGARCANE TO LOW CARBON ENERGY IN CALIFORNIA

David Rubenstein, President / CEO, California Ethanol & Power, LLC (CE+P)

H1.6 KINETICS OF THE CO2 METHANATION REACTION OVER ALUMINA SUPPORTED NI & NI-FE CATALYST

Atul Kumar, Student, IIT Kanpur; Deepak Kumar & Goutam Deo

Co-Chairs

1PM - 3PM

&

Nedia Miller Tim Donnelly

H2. GHG & EGRID UPDATES

H2.1 ANALYSIS OF POTENTIAL CO2 REDUCTION USING THE EPA'S GHG REGULATION **BLOCK STRATEGIES FOR EXISTING EGUS**

Emily Kunkel, Environmental Associate, Sargent & Lundy, LLC; Raiendra Gaikwad

H2.2 GHG PERMITTING: CURRENT STATUS & RECENT UPDATES

Maren Seibold, Managing Consultant, Trinity Consultants

H2.3 EGRID UPDATES

Travis Johnson, Environmental Protection Specialist, US Environmental Protection Agency; Jeremy Schreifels, US EPA; Cristina Quiroz, Radium Consulting

H2.4 PLASMA GASIFICATION OFFSETS OF GHG EMISSIONS FROM COAL-FIRED POWER **PLANTS**

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

3:30PM - 5:30PM

Co-Chair



Travis Johnson

Co-Chair

7:30AM - 9:30AM

Session Sponsor

and Co-Chair

Amber Broch

Co-Chair

Alejandro

Zamorano

Tuesday | February 17

H3. BIOFUELS, ETHANOL & BIODIESEL

H3.1 NHSM REGULATIONS - WHAT IS YOUR "COMFORT" STATUS?

Thomas Pritcher, Senior Engineer II, Environmental Consulting & Technology

H3.2 RAPID, CONTINUOUS PRODUCTION OF SOLID BIOFUEL USING REACTIVE TWIN-SCREW EXTRUSION

Amber Broch, Associate Research Engineer, Desert Research Institute; S. Kent Hoekman, Desert Research Institute; Larry Felix & Bill Farthing, Gas Technology Institute

H3.3 SHREDDED WASTE DOWNDRAFT GASIFIER FOR OVERSEAS CONTINGENCY **OPERATIONS WASTE TO ENERGY CONVERSION**

Matt Reed, Research Materials Engineer, Infoscitex Corporation; Mike Cushman, Jim Belcher & Simeon Schlis, Infoscitex Corporation: Harris Gold, Consultant

H3.4 WHY POPULARIZING HOUSEHOLD BIOGAS DIGESTERS IN RURAL CHINA FAILED?

Wei Lin, Research Fellow / PhD Candidate / Policy Consultant, Tsinghua-Rio Tinto Research Center for Resources, Energy & Sustainable Development; Liwei Hong, Global **Environmental Institute**

H3.5 FUEL DISPLACEMENT IN CALIFORNIA: A 2025 VIEW

Alejandro Zamorano, Head of Advanced Transport Research, Bloomberg New Energy Finance

28

H3.6 BIODIESEL & BIOHEAT FUEL

Jessica Robinson, Director of Communications, National Biodiesel Board



10AM - 12PM

H4. BIOMASS

H4.1 12 MW BIOMASS POWER PLANT AND DEDICATED ENERGY CROP PLANTATION IN NICARAGUA

Carl Kukkonen, CEO, VIASPACE Inc.

H4.2 ADVANCED BIOMASS PELLETS - A RENEWABLE, LOW EMISSIONS ALTERNATIVE FOR COAL FIRED GENERATING FACILITIES

Dammon Frecker, Project Manager, Thermogen Industries, LLC

Co-Chair Roger Sedjo H4.3 CONCEPT FOR SUSTAINABLE ENERGY, FORESTS, SOILS, WATER & COMMUNITIES Timothy McDonald, Retired Engineer

H4.4 WOOD BIOENERGY & LAND USE: A CHALLENGE TO THE SEARCHINGER HYPOTHESISRoger Sedjo, Senior Fellow, Resources for the Future; Brent Sohngen, Ohio State University;
Anne Riddle, Resources for the Future

H4.5 REAL-TIME CORROSION MONITORING DURING CO-FIRING OF ACCORDANT ENERGY'S REENGINEERED FEEDSTOCK

Jacob Beutler, Senior Engineer, Reaction Engineering International; K. Davis, REI; W. Cox, Corrosion Management Ltd.; D. Bai & R. Jafari Accordant Energy LLC

H4.6 ONLINE ELEMENTAL ANALYSIS POSSIBILITIES IN COAL AND BIOMASS APPLICATIONS Nichelle Worthington, Director of Operations, SABIA

1PM - 3PM

Co-Chair

Nick Pollack

H5. COAL ASH / CCP

H5.1 U.S. EPA CCR COMPLIANCE. MAXIMIZE CAPACITY & TRANSITION YOUR EXISTING DISPOSAL SITE

James T. Perry, Project Associate, Sargent & Lundy LLC; Douglas Dahlberg

H5.2 THEY'RE HERE!!! REVIEW OF THE NEW FEDERAL REGULATIONS FOR CCR

Mark Rokoff, National Practice Lead, CCP Management, AECOM Corporation

H5.3 STAR FLY ASH BENEFICIATION - PROCESSING RECLAIMED CCP'S

William Fedorka, Director - Engineering, The SEFA Group

H5.4 MANAGING ASH W/ DENSE SLURRY WHILE CUTTING COSTS & COMPLYING W/ CCR & ELG

Dale Timmons, Program Manager - Business Development, NAES Corporation

H5.5 COAL ASH—A REGULATORY & LITIGATION UPDATE Sam Boxerman, Partner, Sidley Austin LLP; Ben Tannen

H5.6 ASH SWEEPERS - THE STATE OF THE ART ONLINE CATALYST CLEANING SYSTEM

Nick Pollack, Chief Technology Officer, SCR Tech; Jake Shelton

3:30PM -5:30PM

Co-Chair



Andrew Kugler

H6. ALTERNATIVE ENERGY

H6.1 CONSIDERATION OF ALTERNATIVE ENERGY SOURCES IN LICENSING OF NUCLEAR REACTORS

Andrew Kugler, Senior Project Manager, U.S. Nuclear Regulatory Commission

H6.2 THE ALGAE ALTERNATIVE - CARBON CAPTURE & REUSE

Tim Zenk, Executive VP - Business Development, Algenol Biofuels; Paul Woods

H6.3 ALGAE - WASTE REMEDIATION AND ENERGY PRODUCTION

Samuel Shepherd, Chief Technical Officer, Missing Link Technology, LLC; Samuel Shepherd

H6.4 LAND USE CHANGE, CARBON, & BIOENERGY RECONSIDERED

Roger Sedjo, Senior Fellow, Resources for the Future; Brent Sohngen, Ohio State University; Anne Riddle, RFF

Wednesday | February 18

H7. CALIFORNIA CLIMATE MANAGEMENT

7:30PM - 9:30PM

H7.1 SIMPLE AB32 GHG POSITION MANAGEMENT SOLUTION

David Gloski, President, xOverTime Inc.; Todd Barth & Michael Lehane, xOvertime; Ken Nold, Turlock Irrigation District

H7.2 COMPARATIVE ANALYSIS OF GHG DATA COLLECTED UNDER EPA'S GREENHOUSE GAS REPORTING PROGRAM & CALIFORNIA'S MANDATORY GHG REPORTING REGULATION Sean Hogan, Environmental Protection Specialist, U.S. Environmental Protection Agency

H7.3 SAN DIEGO FORWARD: THE REGIONAL PLAN: CLIMATE CHANGE MITIGATION & ADAPTATION WHITE PAPER

Susan Freedman, Senior Regional Energy/Climate Planner, SANDAG; Allison Wood H7.4 REAL-TIME INTERACTIVE DASHBOARD OF ZERO EMISSION VEHICLE DEVELOPMENT IN CALIFORNIA

Ria Langheim, Research Analyst, Center for Sustainable Energy; John Anderson **H7.5 UNDERSTANDING THE CALIFORNIA CARBON MARKET: THE TIMING EFFECT** Jonathan Ornelas, Director of US Emissions, ICIS; Jan Frommeyer & Judith Schroeter

Co-Chair David Gloski

10AM - 12PM

H8. CCS: CARBON CAPTURE & STORAGE

H8.1 W.A. PARISH POST-COMBUSTION CO2 CAPTURE & SEQUESTRATION PROJECT
Ted McMahon, Project Mgr., U.S. Department of Energy; Anthony Armpriester, Petra Nova
H8.2 ION'S ADVANCED CO2 CAPTURE SOLVENT: INITIATION OF SLIPSTREAM PILOT
DEMONSTRATION

Nathan Brown, VP - Research & Development, ION Engineering; Greg Staab, Sr. & Rene Kupfer, ION Engineering; Jason E. Bara, The University of Alabama

H8.3 STUDY OF CO2 ADSORPTION MECHANISM UNDER EXISTENCE OF H2O ON NOVEL CEO2-BASED ADSORBENT

Kohei Yoshikawa, Researcher, Hitachi, Ltd., Hitachi Research Laboratory; Masato Kaneeda, Hitachi, Ltd.; Hidehiro Nakamura & Toshiaki Shirasaka, Hitachi Chemical

H8.4 SEQUESTRATION OF CARBON IN FORESTS IN NORTHEAST BC UNDER THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE
Christopher Maundrell, President, Peace Carbon Trades Ltd

Co-Chair Nathan Brown

H9. CCS | 1PM - 3:00PM

H9.1 DEVELOPMENT OF INNOVATIVE MANGANESE OXIDE BASED OXYGEN CARRIERS FOR CHEMICAL LOOPING COMBUSTION

Ngozi Ekpe, PhD Student, University of Nottingham; Colin E. Snape, Cheng-Gong Sun & Hao Liu

H9.2 REACTIVE & PORE STRUCTURE CHANGES IN CARBON DIOXIDE SEQUESTRATION Hyukmin Kweon, Ph.D candidate, University of Utah; Christian Payne & Milind Deo

H9.3 A PILOT-SCALE PROTOTYPE CO2 ADSORPTION WITH TVSA PROCESS
Fengsheng Su, Post-doc, National Chung Hsing University; Chungsying Lu

David Luebke, CMU; Nicholas Siefert, NETL

H9.4 COMPARATIVE STUDIES OF CO2 CAPTURE VIA PRESSURE SWING ADSORPTION FOR ZEOLITES & AMINE MODIFIED MESOPOROUS SILICAS & METAL ORGANIC FRAMEWORKS Eleni Tsalaporta, PhD researcher - Chemical Engineer, University College Dublin (UCD);

Chuan Liu & Professor Don MacElroy

H9.5 EFFECTS OF CONTAMINANTS TO PRE-COMBUSTION CO2 CAPTURE SOLVENTS

Fan Shi, Sr. Materials Scientist, AECOM/NETL; Brian Kail, AECOM Corp.; Hunaid Nulwala &

NTS ulwala &

Co-Chair

Christopher

Maundrell

Monday | February 16

1PM - 3PM

11. WASTEWATER MANAGEMENT

Session Sponsor and Co-Chair

Ian Saratovsky

Co-Chair

11.1 TESTING TO MEET LOW HG LIMITS IN FGD PURGE WATER AT A COAL-FIRED PLANT

Paul Pigeon, Senior Engineer, Golder Associates Inc.; Troy Patton, Seminole Electric Cooperative Inc.; Rachel Hanson & Kristen Sealey, Golder Associates Inc

11.2 MIXED ASH LANDFILL EMERGING ISSUES

Ivan Cooper, Practice Leader, Civil & Environmental Consultants, Inc.

11.3 TREATMENT OF SELENIUM, ARSENIC, MERCURY, & NITRATE FROM FGD WASTEWATER Joon Min, President, BKT; Behrang (Ben) Pakzadeh, Jay Wos & Jay Renew, SRI; Richard Breckenridge, EPI; Jason Teng, Southern Compan; Allen Chan, JK Kim & GT Park, BKT

11.4 HOLISTIC APPROACH TO WATERSHED-LEVEL RISK ANALYSIS & MGMT OF BROMIDE Robert Strange, Associate Project Manager, Southern Research Institute; Brian Mastin, PhD

Manitia Moultrie 11.5 HCLEARTM TECHNOLOGY: A SOLUTION-BASED APPROACH TO HCL ABATEMENT Ian Saratovsky, Technology Development Manager, Fuel Tech, Inc.; Kent W Schulz, Chris R Smyrniotis, Emil P. Rivera & Heng Wang

12. WATER & ELECTRIC UTILITIES

3:30PM -5:30PM

12.1 THE USE OF PORTABLE FLOWMETERS FOR WATER BALANCE VERIFICATION

Karen Burchardt, Senior Environmental Engineer, Burns & McDonnell; Maggie Skelton, Minnesota Power; Samantha Tewell, Burns & McDonnell

12.2 WATER BALANCE & RECOVERY AT CONEDISON'S GENERATING STATIONS

Angele Kwimi, Engineer, ConEdison; Gary Thorn & Keith Guberman

12.3 WATER SCARCITY CHANGING THE ECONOMICS OF POWER GENERATION

Alex Klaessig, Senior Analyst, IHS CERA

Co-Chairs Alex Klaessia &

Angele Kwimi

12.4 TREATED WASTEWATER IN POWER PLANTS FOR COOLING & DEMINERALIZATION Behrang Pakzadeh, Senior Process Engineer, Kiewit Power Engineers Co.; Brad Buecker, Brian Clarke, P.E., & Michael McMenus

12.5 IDENTIFICATION OF AROCLORS IN ENVIRONMENTAL SAMPLES BY PATTERN MATCHING Randall Bramston-Cook, Principal, Lotus Consulting; Edward Bramston-Cook, Lotus Consulting; Mark Scesny, M Solutions

12.6 UPDATE ON ELECTRIC UTILITY INDUSTRY WASTEWATER ISSUES

Tisha Scroggin, Section Manager, Burns & McDonnell Engineering Company, Inc.

12.7 TBD

American Greener Technologies

Tuesday | February 17

7:30AM - 9:30AM

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McGaughran

Co-Chair Bret DeRousse 13. 316B

13.1 REVIEW & IMPLICATIONS OF THE FINAL SECTION 316(B) RULE

Gregory Howick, Senior Aquatic Ecologist, Burns & McDonnell Engineering Company, Inc.; Steve Gruber

I3.2COMPLIANCE TO EPA 316(B) UTILIZING OPTION 5 MODIFIED TRAVELING SCREENS Sean McGaughran, Global Product Mgr. - Intake Systems, Evoqua Water Technologies

I3.3 DESIGN OF FISH RETURN SYSTEMS & OPERATIONS/MAINTENANCE GUIDELINES

Nathaniel Olken, Project Engineer, ALDEN, Inc.; Dan Giza & Jonathan Black, Alden Research Laboratory, Inc.; Douglas Dixon, Electric Power Research Institute

13.4 INTAKE RETROFITS WITH RETRIEVABLE CYLINDRICAL SCREENS

Jason Eichenberger, Senior Civil Engineer, Burns & McDonnell Engineering Company, Inc; Terry Larson, Burns & McDonnell Engineering Compan; Karen Hinkforth, We Energies

13.5 FISH SURVIVAL FROM A HYDROLOX TRAVELING WATER SCREEN & FISH RETURN SYSTEM Brett DeRousse, National Account Manager, Intralox; Doug Dixon, EPRI; Justin Mitchell, Alabama Power

13.6 FINE MESH SCREENS AS ENTRAINMENT BTA UNDER THE EXISTING FACILITIES RULE Mark Gerath, Principal Scientist - Water Resources, Environmental Consulting & Technology; John Burnett, HDR; Jon Black, Alden

Tuesday | February 17

Co-Chair

Greg Seegert

14.316B 10AM - 12PM

14.1 316B COOLING TOWER EFFICIENCY IMPACTS & RELATED SOCIAL COSTS

Matthew Bingham, Principal Economist, Veritas Economics; Grant Crownfield 14.2 HOW TO ADDRESS THE BIOLOGICAL STUDIES REQUIRED AS PART OF THE 316B RULE

Greg Seegert, Chief Ichthyologist, EA Engineering, Science & Technology; Ron King & Joe Vondruska

14.3 IMAGING SONAR: FISH MONITORING IN COOLING WATER INTAKE STRUCTURES Peter Johnson, Sr. Research Scientist, LGL Alaska Research Associates, Inc.; Jonathan

Leiman, Environ International Corp.

14.4 316B THE SOCIAL COSTS OF LOST FLOW

Matthew Bingham, Principal Economist, Veritas Economics; Jason Kinnell & Dawn Woodard

14.5 WILL CLEAN WATER ACT 316B REGULATIONS END CHEMICAL COOLING WATER TREATMENT PROGRAMS?

Mary Wolter Glass, President, Mexel USA, LLC

15. FGD WASTEWATER - ZLD

15.1 ACHIEVING FGD WASTEWATER ZLD THROUGH ENCAPSULATION: CHALLENGES, **BENEFITS, & TECHNOLOGY READINESS**

Morgan French, Research Engineer, Southern Company Services; Kirk Ellison

I5.2 INTEGRATING ZERO LIQUID DISCHARGE (ZLD) TECHNOLOGY INTO THE DESIGN OF A 6X800 MW FGD RETROFIT PROJECT

Mike Preston, Chemical Engineering Section Leader, Black & Veatch; Steve E. Russell 15.3 POZZOTEC - A SIMPLE PATH TO ZERO LIQUID DISCHARGE

Scott Fraley, Sr. Technical Specialist - FGT Markets, Carmeuse Lime & Stone

15.4 PROCESSING POWER PLANT WASTE TO HIGH MARKETABLE COMMODITIES. AN OUTLOOK

Paulo Oliveira, Product Marketing Manager, Alstom; Philip Rader & Ray Gansley

Robert Bobeck, PhD, Process Development, Dustex

15.5 CIRCULATING FLUID BED EVAPORATOR FOR POWER PLANT WASTEWATER TREATMENT Angelos Kokkinos, Chief Technology Officer, Babcock Power, Inc.; Matt Quitadamo 15.6 ZLD SOLUTIONS FOR POWER PLANTS

and Co-Chair

Session Sponsor

1PM - 3PM



Kirk Elison

Co-Chair Scott Fraley

16. FGD WASTEWATER

I6.1 ONLINE MONITORING OF HG, SE AND AS IN FGD WASTEWATER TREATMENT PLANTS Warren Corns, Research Director, PS Analytical Ltd: Bin Chen

16.2 MINIMIZING THE COST OF ELG COMPLIANCE BY REDUCING FGD BLOWDOWN Kristin Glikbarg, Associate Process Engineer, Burns & McDonnell Engineering Company, Inc.: Dave Guinta

16.3 THE ELECTRIC GENERATING UTILITIES WATER RESERACH CENTER Morgan French, Research Engineer, Southern Company Services Inc.

16.4 ONLINE MULTI-METAL WATER ANALYZER BASED ON X-RAY FLUORESCENCE Troy Pittenger, Research & Development Director, Cooper Environmental Services: Josh Katz, Brian Edge & John Cooper

I6.5 NEW EPA ENDORSED METHOD FOR THE ANALYSIS OF FGC WASTEWATERS BY ICP/MS Richard Burrows, Corporate Technical Director, TestAmerica Inc

16.6 FGD WASTEWATER USING VIBRATORY SHEAR ENHANCED PROCESSING MEMBRANE Robert Strange, Associate Project Manager, SRI; Behrang Pakzadeh, SRI; L. Stowell & A. DeSchutter, New Logic Research; R. Breckenridge, EPRI; J. Teng, Southern Company

3:30PM - 5:30PM

Session Sponsor and Co-Chair SOUTHERN RESEARCH

INSTITUTE Robert Strange

> Co-Chair Waren Corns



Wednesday | February 18

Co-Chairs

Hari Gupta

Katie Bland

7:30AM - 9:30AM | 7. WATER SUSTAINABILITY

17.1 CONSTRUCTED WETLAND TREATMENT SYSTEMS IN THE POWER INDUSTRY: AN INNOVATIVE DESIGN FOR POLISHING OF FGD WASTEWATER

Katie Bland, Senior Environmental Engineer, Burns & McDonnell; Paul Von Hertsenberg, Westar Energy; Chris Snider, Burns & McDonnell

17.2 LIFE CYCLE WATER USAGE FOR PHOTOVOLTAIC ELECTRICITY PRODUCTION: MANUFACTURING WATER REQUIREMENTS

Jordan Macknick, Energy and Environmental Analyst, NREL; Garvin Heath & Ariel Miara 17.3 BOILER FEED WATER DECHLORINATION USING HYDRO-OPTIC UV TECHNOLOGY Ken Jeffers, Manager - SCR Catalyst Services Southern Research Institute; Jay Wos &

Behrang Pakzadeh, Southern Research Institute; Dennis Bitter & Ytzhak (Itzik) Rozenberg, Atlantium Technologies, Inc.; Tracy Underwood, Georgia Power Company; Richard Breckenridge, Electric Power Research Institute

17.4 TREATMENT OF OIL-CONTAMINATED SPRING WATER IN A VILLAGE IN IRAN FOR AGRICULTURAL USAGE

Karim Ghasemipanah, Senior Researcher, Research Institute of Petroleum Industry (RIPI);

I7.5 WATER FOOTPRINTING & MAPPING FOR COMMERCIAL/INDUSTRIAL FACILITIES: STRATEGIES FOR WATER CONSERVATION, TREATMENT, & REUSE

Hari Gupta, Principal Engineer, Coriolis Enterprises, Inc.



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Tuesday | February 17

J5. Ha FUEL CELLS

1PM - 3PM

Co-Chair

Randall

Bramston-Cook

J5.1 DESIGN OF A HYDROGEN FUEL ANALYZER

Edward Bramston-Cook, Principal, Lotus Consulting; Randall Bramston-Cook, Lotus Consulting; David Blekhman, California State University; Yu Chen, Tiger Optics, LLC

J5.2 CONVERTING A 14-TURBINE STRANDED WINDPLANT TO PRODUCE HYDROGEN FUEL FROM 100% OF AEP

Bill Leighty, Principal, Alaska Applied Sciences, Inc.

J5.3 COMMERCIALLY VIABLE FUEL CELL TELECOM BACKUP POWER SOLUTIONS Kevin White, Director of Sales - Americas, Ballard Power Systems Inc.

J5.4 RENEWABLE & SUSTAINABLE ENERGY - SOLAR TO HYDROGEN FOR FUEL CELL ELECTRICITY

Thomas W. Oakes, PhD, CEO, Solar Hydrogen Energy Co J5.5 PERFORMANCE OF HYDROGEN FUEL ANALYZER

Randall Bramston-Cook, Principal, Lotus Consultina; Edward Bramston-Cook, Lotus Consultina: David Blekhman, PhD, California State University: Yu Chen, Tiger Optics LLC

37

Monday | February 16

1PM - 3PM

J1. FLEET

J1.1 ALTERNATIVE FUELS FLEET ANALYSIS TO REDUCE FUEL COSTS & GHG EMISSIONS Kevin Wood, Project Mgr - Clean Transportation, Center for Sustainable Energy; Randy Wilde

Co-Chair Yair Crane & Randy Wilde J1.2 CLEAN VEHICLES TECHNOLOGY: FUELING WITH H2 GENERATED FROM ALTERNATIVE **FUELS**

Dara Grigorova, CEO, Adventure AD

J1.3 THE DEVELOPMENT OF CALIFORNIA LIGHT-DUTY VEHICLE (LDV) REQUIREMENTS TO SUPPORT CLIMATE STABILIZATION: FLEET-EMISSION RATES & PER-CAPITA DRIVING

Michael Bullock, Transportation Committee Chair, San Diego Sierra Club

J1.4 IMPROVING TURN TIMES: HARNESSING GPS DATA FOR DRAYAGE TRUCK EFFICIENCY

Yair Crane, Associate, E2 ManageTech; Greg Alexander

J1.5 WEST COAST ELECTRIC FLEETS

Randy Wilde, Project Associate, Center for Sustainable Energy

Tuesday | February 17

7:30AM - 9:30AM

J3. EV. PHEV HYBRID SYSTEMS

J3.1 MULTI-UNIT DWELLING VEHICLE CHARGING - CHALLENGES & RESOURCES

Joel Pointon, Electric Trans. Manager, San Diego Gas & Electric

J3.2 SAN DIEGO REGIONAL ELECTRIC VEHICLE READINESS PLAN: ACCELERATING THE

ADOPTION OF PLUG-IN VEHICLES

Anna Lowe, Associate Regional Energy/Climate Planner, San Diego Association of

Governments (SANDAG)

Co-Chairs Joel Pointon

& Edward Lovelace J3.3 HOW HYBRID ELECTRIC FLEETS BOOST SUSTAINABILITY & BRAND AWARENESS

Edward Lovelace, Chief Technology Officer, XL Hybrids J3.4 ELECTRIC VEHICLES AND WORKPLACE CHARGING

Randy Schimka, Project Manager - Clean Transportation, San Diego Gas & Electric

J3.5 HAVE ELECTRIC VEHICLES ALREADY WON?

Andrew Went, PhD Student, Curtin University Sustainability Policy Institute (CUSP)

J3.6 WORKPLACE CHARGING IS CRUCIAL FOR EV ADOPTION

Bill Williams, Head of North American Sales - EV Chargers, Telefonix, Inc.: John Hipchan

10AM - 12PM

J4. BATTERY & STORAGE SYSTEMS

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Victor Shao

Co-Chair William Conlon J4.1 ADVANCED LEAD ACID BATTERY TECH. FOR MICRO & MILD HYBRID EV APPLICATION Shawn Peng, V.P of Technology, Leoch Battery Corp.

J4.2 SECONDARY USE APPS. OF PLUG-IN ELECTRIC VEHICLE LITHIUM-ION BATTERIES Mike Ferry, Senior Specialist - Advanced Energy Projects, Center for Sustainable Energy; Michele Bogen

J4.3 HOW CAN INTELLIGENT ENERGY STORAGE BE COST EFFECTIVE?

Victor Shao, CEO, Green Charge Networks J4.4 LAPS CYCLE FOR BULK ENERGY STORAGE William Conlon, President, Pintail Power LLC

J4.5 LI-ION BATTERY TECHNOLOGY BASED ENERGY STORAGE SYSTEM - CHALLENGES,

OPPORTUNITIES AND APPLICATIONS Yuan Dao, PhD, Elite Power Solutions, LLC

J4.6 NMP FREE MANUFACTURING PROCESSES APPLIED TO GRID SCALE LITHIUM ION **ENERGY STORAGE APPLICATIONS**

Rajshekar DasGupta, Vice President Technology, Electrovaya

J4.7 OPERATING ZONES IDENTIFICATION FOR INDEPENDENT-ENERGY-STORAGE Hussein Abdeltawab, Teaching Assistant, U. of Alberta; Yasser Mohamed Abdel Rady

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TUE (2/17)	9:00 am	-	7:00 pm					
WED (2/18)	9:00 am	-	12 noon					
WED (2/18)	12 noon	-	3:00 pm	Tear down				

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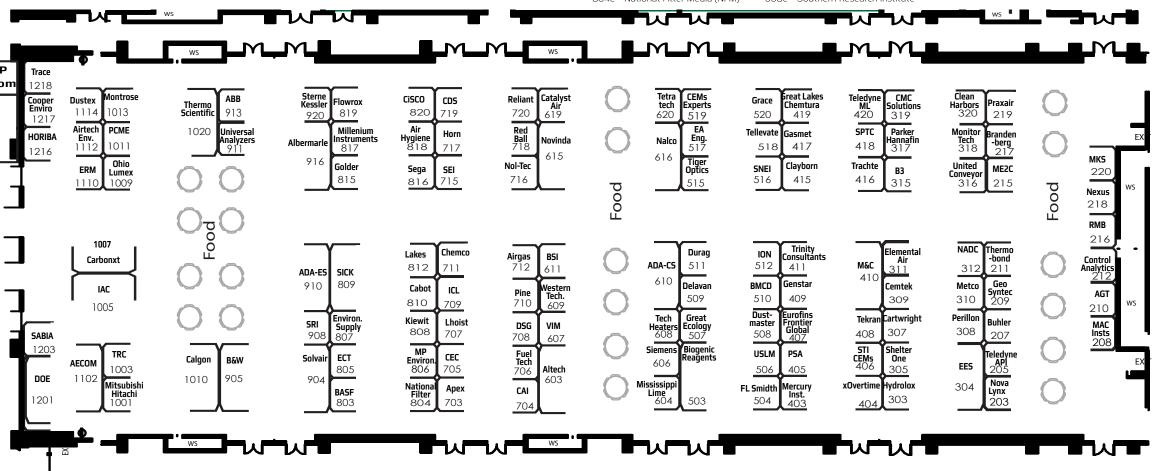
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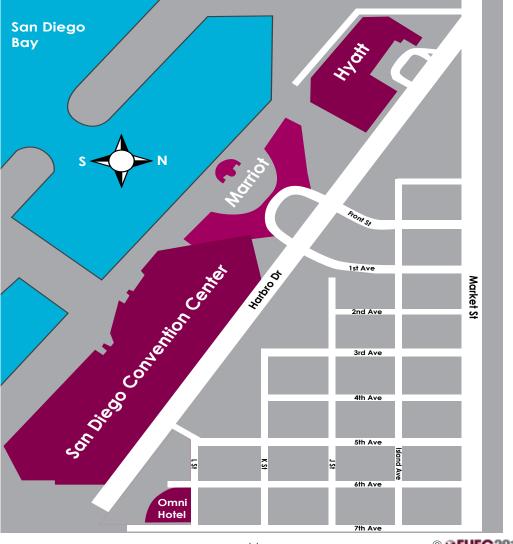


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2. ONE PAGE ADVERTISEMENT IN SHOW GUIDE - \$1,000

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.

3. YOUR LOGO ON EVENT TICKET - \$3,000 +

As a Network event sponsor you will have your name and logo in each ticket used by conference attendees at the network event breaks in the exhibit hall.

4. LOGO ON FLASH DRIVE CONFERENCE PROCEEDINGS - \$5,000

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.

RESERVATION FORM

Name:		
Company Name:		
Address:		
City:	State:	Zip:
Email:		phone:
COMMENT:		

Fax to EUEC: (602-296-0199) or email info@euec.com