


Methane Expo 2013 Agenda
12-15 March 2013 • Vancouver, Canada

Monday, 11 March 2013

09:00-18:00	CCAC MSW Working Group Meeting* *meeting is for working group participants only
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Tuesday, 12 March 2013

08:00-18:00	Registration	Exhibit Set-up
08:00-18:00	Sector-Specific Long Site Tours	
08:00-14:00	Sector-Specific Short Site Tours	
13:00-18:00	CCAC MSW Working Group Meeting (continued)	
14:30-18:30	Steering Committee Meeting	
15:00-17:00	CCAC Oil and Gas Meeting by invitation only	Exhibits Open
19:00	Expo Opening & Welcome Reception – Hosted by <div style="text-align: center;">  Environment Canada Environnement Canada </div>	

Wednesday, 13 March 2013

08:00-18:00	Registration						Exhibits Open
09:00-10:35	Opening Plenary Session						
10:35-11:10	Networking Break						
11:10-12:10	Opening Plenary Session (continued)						
12:30-13:30	Lunch						
13:30-15:30	Steering Committee Meeting	Agriculture Subcommittee Meeting	Coal Mines Subcommittee Meeting	Municipal Solid Waste (MSW) Subcommittee Meeting	Municipal Wastewater (MWW) Subcommittee Meeting	Oil & Gas Technical Session	
15:30-16:00	Break						
16:00-18:00	Steering Committee Meeting	Agriculture Subcommittee Meeting	Coal Mines Subcommittee Meeting	MSW Subcommittee Meeting	MWW Subcommittee Meeting	Oil & Gas Technical Session	
18:00-19:30	CCAP Side Event by invitation only						

Thursday, 14 March 2013

09:00-10:30	Plenary Session (Finance Panel)						Exhibits Open
10:30-11:00	Networking Break						
11:00-12:30	Steering Committee Meeting	Agriculture Technical Session	Coal Mines Technical Session	MSW Technical Session	MWW Technical Session	Oil & Gas Technical Session	
12:30-13:30	Lunch						
13:30-15:30	Steering Committee Meeting	Agriculture Technical Session	Coal Mines Technical Session	MSW Technical Session	MWW Technical Session	Oil & Gas Technical Session	
15:30-16:00	Break						
16:00-18:00	Steering Committee Meeting	Agriculture Technical Session	Coal Mines Technical Session	MSW Technical Session	MWW Technical Session	Oil & Gas Technical Session & Subcommittee	

Friday, 15 March 2013

08:00-10:30	Biogas Cross-Cutting Technical Session	Coal Mines Technical Session	Oil & Gas Technical Session	Exhibit Open
10:30-11:00	Networking Break			
11:00-12:00	Municipal Leaders Forum			
12:00-13:00	Closing Plenary			



Plenary Session

Wednesday, 13 March 2013

- 09:00 – 09:15 **Introductions**
Stephen de Boer, Environment Canada
- 09:15 – 09:35 **Welcome Address**
The Honourable Peter Kent, Minister of the Environment (Canada)
- 09:35 – 09:55 **State of GMI**
Janet McCabe, Deputy Assistant Administrator, Office of Air and Radiation, U.S. Environmental Protection Agency and GMI Steering Committee Chair
- 09:55 – 10:15 **Presentation from Ukraine**
Lyubomyr Goncharuk, Advisor to the Ministry of Ecology and Natural Resources of Ukraine
- 10:15 – 10:35 **Welcome and City Perspective on Climate Change**
Greg Moore, Chair of Metro Vancouver
- 10:35 – 11:10 Networking Break
- 11:10 – 11:30 **Methane Finance Study Group**
Brice Quesnel, World Bank
- 11:30 – 11:50 **International Framework for Short-Lived Climate Pollutants,**
Zbigniew Kamienski, Polish Ministry of Economy
- 11:50 – 12:10 **Discussion of New Climate and Clean Air Coalition (CCAC) Activity**
Kaveh Zhaedi, United Nations Environmental Programme (UNEP)
- 12:30 Lunch

Thursday, 14 March 2013

**International Finance Panel:
Different Approaches to Funding Methane Projects**

Moderator: Laurence Blandford, Environment Canada

Recognizing the important role the financial sector will play in the post-Kyoto world, this plenary session will look at a case study and explore the necessary factors needed to finance a project. This Town Hall-format session will provide an opportunity to hear from key players engaged in the discussion on global methane finance.

09:00 – 10:30

Invited Panelists Include the Following:

Patrick Doyle, Inter-American Development Bank (IDB)

Jiwan Acharya, Asian Development Bank (ADB)

Maria del Mar Mozo, Liquidation Director, Municipality of Cali Solid Waste Collection Company (Colombia)

10:30 – 11:00

Networking Break

Friday, 15 March 2013

11:00 – 12:00

Municipal Leaders Forum

Moderated by Laurence Blandford, Environment Canada

Invited Panelists Include the Following:

- *Darrell Mussatto, Chair of Metro Vancouver Utilities Committee and Mayor, City of North Vancouver (Canada)*
- *Maria del Mar Mozo, Liquidation Director, Municipality of Cali Solid Waste Collection Company (Colombia)*
- *Prof. Federico Rangel Lozano, Mayor, Municipality of Colima (Mexico)*
- *Patricio Moya, Director of Services and Operations, Municipality of Viña del Mar (Chile)*

12:00 – 12:20

Overview Remarks on Steering Committee and Technical/Policy Sessions

Pamela Franklin, U.S. EPA

12:20 – 12:30

Closing Remarks

Stephen de Boer, Environment Canada

12:30

Adjournment



Agriculture Subcommittee Meeting and Technical Sessions

Wednesday, 13 March 2013

13:30 – 18:00 **Agriculture Subcommittee Meeting**

13:30 – 13:45 **Welcome and Introductions**

- Brief introduction of meeting participants
- Review of meeting goals and agenda

13:45 – 15:30 **Country/Area/Project Network Updates**

Partner Country and Project Network delegates

- Brief updates on sector-specific activities within each area
 - Argentina
 - CCAC
 - China
 - Finland
 - Taiwan
 - Thailand
 - United States

15:30 – 16:00 Break

16:00 - 17:45 **Action Items for the Year**

- Agriculture International Best Practices Guide
 - Review of Case Studies
 - Suggestions for additional information to be included

17:45 – 18:00 **Summary of Action Items Discussed at this Meeting**

- Meeting action items
- Specific tasks meeting participants agree to accomplish and report on by next meeting

18:00 Adjournment

Thursday, 14 March 2013

11:00 – 12:30 **Agriculture Technical Breakout: Session 1 – Tools & Technical Considerations for Biogas Projects**

Co-digestion for Methane Capture and Use: Optimization for Backyard and Small Commercial Livestock Operations

David Robbins, RTI International

Designing a CDM Project - Good Engineering Design vs. Good CDM Engineering
Daniel Raffo, BUNGE Ecoinvest Carbon S.A.

Nutrient Management and Air Emissions Tools for Livestock and Poultry Operations: CLEANEast Project Review
Karen Shaffner, RTI International

12:30 – 13:30 Lunch

13:30 – 15:30 Agriculture Technical Breakout: Session 2 – Case Studies
Moderator: Darren Frew, BC Bioenergy Network

Methane Capture and Use Potential from Palm Oil Mills in Indonesia
Miguel Franco, Tetra Tech

Farm Scale Anaerobic Digestion Demonstration Project Using a Psychrophilic Sequencing Batch Bioreactor Technology
Steve Boivin, Bio-Terre Systems

Lagoon Cover Anaerobic Digesters. A Cost Effective Solution for Energy Recovery
Ricardo Hamdan, Greenlane Biogas

15:30 – 16:00 Coffee Break

16:00 – 18:00 Agriculture Technical Breakout: Session 3 – Project Financing Options
Moderator: Scott Stanners, BC Bioenergy Network

Methane Recovery and Combustion with Renewable Energy Generation from Anaerobic Animal Manure Management Systems under the Land Bank of the Philippines' (LBP) Carbon Finance Support Facility
Josefina A. Ramos, Land Bank of the Philippines

Using a Market-based Mechanism to Overcome Insufficient Government Support for Anaerobic Digesters
Matthew Dickson, BC Agricultural Research and Development Corporation

The First Anaerobic Digester for Agriculture in British Columbia: My 8-Year Journey
Christopher Bush, Catalyst Power Inc.

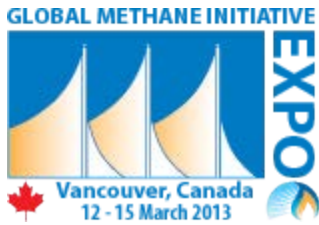
Medium Sized Biogas Plants: Pakistani Experiences and Regional Prospects
Prem Subedi, Winrock International

18:00 Adjournment

Friday, 15 March 2013

08:00 – 10:30

Biogas Cross Cutting Technical Session



Coal Subcommittee Meeting and Technical Sessions

Wednesday, 13 March 2013

13:30 – 18:00

Coal Subcommittee Meeting

13:30 – 14:00

Welcome Addresses

Co-Chair Felicia Ruiz (United States), Co-Chair Huang Shengchu (China), and Co-Chair A.K. Debnath (India)

- Brief introductions of all meeting participants
- Adoption of agenda

14:00 – 15:00

Policy Session

Moderator: Clark Talkington, Advanced Resources International

- Policies and Programs to Address Fugitive Emissions from Coal Mining in Australia: *Bruce Murphy, Australia Department of Resources, Energy and Tourism*
- Current Situation of Development and Utilization of Coal Mine Methane (CMM) and Potential During 12th Five-Year Plan in China: *Huang Shengchu, China Coal Information Institute (CCII)*
- Development of CMM in India: Opportunities & Challenges: *B.N. Prasad, Central Mine Planning & Design Institute (CMPDI)*

15:00 – 15:30

Partner Country and Project Network Updates

Partner country delegates

- Brief updates (5-10 minutes each) from Partner country delegates
 - China
 - India
 - Mongolia
 - Poland
 - Turkey
 - Ukraine
 - United States

Project Network members

- Brief updates on activities and new developments in 2013

15:30 – 16:00

Break

16:00 – 17:00

Partner Country and Project Network Updates (continued)

17:00 – 17:45

Action Items for the Year

Co-Chair Felicia Ruiz (United States)

- Coal Subcommittee Action Plan
- Country-specific Coal Action Plans
- Updates to the CMM Technology Database
- International CMM Project Database
- Other

17:45 – 18:00

Summary of Action Items Discussed at this Meeting

Subcommittee Co-Chairs

- Meeting action items
- Specific tasks participants agree to accomplish and report on by next meeting
- Next subcommittee meeting (potential dates and agenda topics)
- Announcements about upcoming coal-related conference/workshops

18:00

Adjournment

Thursday, 14 March 2013

11:00 – 12:30

Finance Session: Carbon Markets, Incentives and Funding Sources

Moderator: Michael Coté, Ruby Canyon Engineering

11:00 – 11:20

Energizing the Electricity Market for Methane

Meredydd Evans, Joint Global Change Research Institute, Pacific Northwest National Laboratory

11:20 – 11:40

CMM Utilization Business Models after the Kyoto Protocol

Boni Jiang, Guizhou International Cooperation Center for Environmental Protection

11:40 – 12:00

VAMOX® Projects at Walter Energy's U.S. Coal Mines

Raphaël Bruneau, Biothermica Technologies

12:00 – 12:30

Question and Answer

12:30 – 13:30

Lunch

13:30 – 15:30

Technology Session: Innovation and Adaptation of Technology for Cost-Effective Use of CMM and AMM

Moderator: Raymond C. Pilcher, Raven Ridge Resources

13:30 – 13:50

Directional CBM Drillings Ahead of Mining - New Chance for Reduction of CMM Emissions in Poland

Jacek Skiba, Central Mining Institute of Poland

13:50 – 14:10

Power and Heat Cogeneration to Utilize Coal Mine Methane in Ukraine

Artur Ghazaryan, Green Way 2020

14:10 – 14:30

Methane in Abandoned Coal Mines in China – An Unexploited Resource

Ronald Collings, Ruby Canyon Engineering

14:30 – 14:50

Prospect of the Utilization of CMM with Low Concentration in China

Liu Xin, China Coal Information Institute (CCII)

- 14:50 – 15:20** **Current Status, Issues and Prospects of CMM Recovery and Utilization in Henan Province, China**
Wang Sipeng, Safety Administration of ZhengZhou Coal Industry (Group) Co. Ltd.
- 15:20 – 15:30** **Question and Answer**
- 15:30 – 16:00 Coffee Break
- 16:00 – 18:00** **Technology Session: Innovation and Adaptation of Technology for Cost-Effective VAM Abatement**
Moderator: Dr. Hua Guo, CSIRO Advanced Coal Technology
- 16:00 – 16:20** **Long-Term Experience of VAM Processing**
Michael Hager, MEGTEC
- 16:20 – 16:40** **Preliminary Deflagration and Venting Study for VAM RAB®**
J. A. Hamilton, Corky's Sustainable Energy
- 16:40– 17:00** **Development and Site Trials of a 25kWe VAM Catalytic Combustion Gas Turbine Prototype Unit**
Shi Su, CSIRO Earth Science and Resource Engineering
- 17:00 – 17:20** **Development of a 'Design Assurance Process' and the First Safe Direct Coupling of a Commercial Scale RTO to a Working Coal Mine Ventilation Fan**
D.J. Cork, Corky's Sustainable Energy
- 17:20 – 18:00** **Question and Answer**
- 18:00 Adjournment

Friday, 15 March 2013

- 08:00 – 9:30** **Best Practices Session: Safe and Effective Capture of CMM and VAM**
Moderator: Dr. David Creedy, Sindicatum Climate Change Foundation
- 08:00 – 08:20** **Coal Mine Safety Project – Mei Kuang An Quan**
Dr. David Creedy, Sindicatum Climate Change Foundation
- 08:20 – 08:40** **Methane Gas Drainage in Khe Cham Coal Mine and Forecast of Developing Potential of Gas Drainage at Underground Coal Mines in Quang Ninh Coal Basin Vietnam**
Mr. Le Trung Tuyen, Vinacomin - Institute of Mining Science and Technology
- 08:40 – 09:00** **Preliminary Assessment of Methane Recovery from Sealed Off Areas of Moonidih Mine, India**
B.K. Prusty, Indian Institute of Technology, Kharagpur, India
- 09:00 – 09:20** **Integrated Coal Production and Methane Extraction**
Dr. Hua Guo, CSIRO Advanced Coal Technology

09:20 – 09:30 **Question and Answer**

09:30 – 10:30 **Panel Discussion: Technical Session Chairs and Delegate Participation**

10:30 Adjournment



Municipal Solid Waste Subcommittee Meeting and Technical Sessions

Wednesday, 13 March 2013

13:30 – 18:00 **Municipal Solid Waste Subcommittee Meeting**

13:30 – 13:45

Welcome and Introductions

Tom Frankiewicz and Diana Milena Rodríguez, Subcommittee Co-Chairs

- Brief introduction of meeting participants
- Review minutes from November 19 subcommittee meeting
- Review of meeting goals

13:45 – 14:30

Subcommittee Business

Tom Frankiewicz, Subcommittee Co-Chair

- Discussion of subcommittee goals/next steps
 - Survey results
 - Climate and Clean Air Coalition (CCAC) MSW initiative
 - Central-Eastern European landfill gas generation model

14:30 – 15:30

Country Updates

Partner Country delegates

- Brief updates on methane action plans and other sector-specific activities within each country

15:30 – 16:00

Break

16:00 – 16:30

Country Updates (Continued)

16:30 – 17:45

Waste Sector NAMAs Discussion

- Summary and Status of NAMAs in Solid Waste Sector – *Tom Frankiewicz, Subcommittee Co-Chair*
- NAMAs Roundtable

17:45 – 18:00

Summary of Action Items Discussed at this Meeting

Tom Frankiewicz and Diana Milena Rodríguez, Subcommittee Co-Chairs

- Meeting action items
- Specific tasks meeting participants agree to accomplish and report on by next meeting
- Possible agenda topics for the next subcommittee meeting

18:00

Adjournment

Thursday, 14 March 2013

11:00 – 12:30 **Municipal Solid Waste Technical Session A – Methane Abatement**

Bio-Cancun: Organic Waste to Energy Project in Mexico

Arvind Chandrasekar, SENES Consultants Limited

Semi-formal Recycling as a Viable Option for Methane Abatement in Developing Countries

Sandra Mazo-Nix, SCS Engineers

Reducing Black Carbon Emissions from Open Burning: A Co-Benefit of Landfill Methane Recovery

Nimmi Damodaran, Stratus Consulting, Inc.

13:30 – 15:30 **Municipal Solid Waste Technical Session B – Greenhouse Gas (GHG) Reductions from Waste Sector**

Better Waste Management Can Avoid GHG Emissions Significantly

Marlene Sieck, Federal Environment Agency

GHG Emissions and Energy Potential by Waste Destination in Brazil

Carlos Silva Filho, ABRELPE – Brazilian Association of Waste Management Companies

A Municipal Waste Analysis in Mexico's Southeast Region for GHG Reduction

Ramon Delgado, ICLEI – Local Governments for Sustainability

Landfill Gas Recovery and Combustion with Renewable Energy Generation from Sanitary Landfill Sites under Land Bank of the Philippines Carbon Finance Support Facility

Josefina A. Ramos, Land Bank of the Philippines

Methane as a Fuel for Community Economic Development

Paul Liddy, Cedar Road Bioenergy Inc.

Economic Comparison of a GHG Emission Reduction System at a Regional Municipal Solid Waste Management Facility

Richard Aho, Marquette County Solid Waste Management Authority

Best Practices to Select Internal Combustion Engines and Maximize the Economic Benefits of Converting Methane to Electricity

Mauricio Lopez, Caterpillar Americas Services Co.

16:00 – 18:00 **Municipal Solid Waste Technical Session C – Case Studies and Project Development**

Maximizing GHG Reductions at the Vancouver Landfill

Lynn Belanger, City of Vancouver and Ted Massart, SCS Engineers

Landfill Gas Utilization - Coquitlam Landfill in Canada

Harvey Choy, Metro Vancouver

Novo Gramacho Landfill Gas Biomethane Purification Project in Brazil

Enrique Ruiz, FirmGreen, Inc.

Development of Landfill Gas Technology in Ukraine – Status and Prospects

Yuri Matveev, Renewable Energy Agency (REA), SEC Biomass

Application of ORC-process for Landfill Gas CHP-Efficiency Optimization

Jukka Salmela, Helsinki Region Environmental Services Authority

Possibilities and Obstacles for Utilization of Methane from Landfills in Serbia

Goran Vujic, University of Novi Sad

18:00

Adjournment

Friday, 15 March 2013

08:00 – 10:30

[Biogas Cross Cutting Technical Session](#)



Oil and Gas Technical Sessions and Subcommittee Meeting

Wednesday, 13 March 2013

13:30 – 15:30 **Corporate Experience in Addressing Methane Emissions**

Reduction on Methane Emission - China National Offshore Oil in Action
Li Bo, CNOOC

Implementing Innovative Pipeline Repair Methods in Ukraine to Avoid Methane Emissions from Venting
Oleh Kostenko, Ukrtransgas

15:30 – 16:00 Break

16:00 – 18:00 **Approaches to Methane Emissions Detection and Measurement**

Advanced Mobile Technologies for the Identification, Attribution, Quantification, and Visualization of Fugitive Methane Emissions from Natural Gas Production
Chris Rella, Picarro

Flaring as a Source of Short-Lived Climate Forcers: Field Measurements of Black Carbon Emissions using Sky-LOSA
Matthew Johnson, Carleton University

A Novel Remote GHG Emission Monitoring System
David Picard, Clearstone Engineering Ltd.

GHG Reductions Via Flaring & Venting Mitigation in Western Canada
Matthew Johnson, Carleton University

18:00 Adjournment

Thursday, 14 March 2013

11:00 – 12:30 **Panel Session: Collaborating with the Global Methane Initiative to**

Identify and Measure Oil and Gas Methane Emissions

Invited panelists include representatives from the following organizations:

STAR Energy, Indonesia

Ecopetrol, Colombia

PEMEX, Mexico

PTT, Thailand

12:30 – 13:30

Lunch

13:30 – 15:30

Best Practices for Capturing and Utilizing Methane Emissions in the Oil and Gas Industry

An Overview of PTAC's R&D Work on Reducing Methane Emissions, Recovery and Field Usage

Soheil Asgarpour, Petroleum Technology Alliance Canada

Best Practices for Reduction of Methane Emissions from Arctic Oil and Gas Production

Stephanie Saunier, Carbon Limits

Profitable Use of Vented Emissions in Gas and Oil Production

Howard Malm, REM Technology and Andrea Lamond, Encana

15:30 – 16:00

Break

16:00 – 17:30

Best Practices for Capturing and Utilizing Methane Emissions in the Oil and Gas Industry (cont.)

Management of Flashing Losses from Condensate Tanks at Compressor Stations

David Picard, Clearstone Engineering Ltd.

Gas-to-Liquid Technologies for Carbon Capture

Omar Hurtado, SNC-Lavalin Environment

Funding Methane Reduction Projects via Carbon Offset Credit Generation

Michael D'Antoni, Pacific Carbon Trust

17:30 – 18:30

Oil and Gas Subcommittee Meeting

17:30 – 17:40

Welcome and Introductions

Javier Bocanegra (Mexico) and Michael Layer (Canada), Subcommittee Co-Chairs

- Brief introduction of meeting participants
- Review of meeting goals/adoption of agenda

17:40 – 17:55

Climate and Clean Air Coalition (CCAC) Update

Carey Bylin, U.S. EPA

- General update

17:55 – 18:25

**General Discussion of On-going Subcommittee Business/
Action Items for the Year**

Subcommittee Co-Chairs

- Subcommittee goals and possible next steps
- Areas for Subcommittee engagement
- Brief updates on sector-specific activities within each country in support of the GMI strategic goals and charge to the Subcommittee (Specifically, those activities not presented during the Technical Sessions)

18:25 – 18:30

Summary of Action Items Discussed at this Meeting

Subcommittee Co-Chairs

- Meeting action items
- Specific tasks meeting participants agree to accomplish and report on by next meeting
- Possible agenda topics for the next subcommittee meeting
- Confirmation of meeting location

18:30

Adjournment

Friday, 15 March 2013

08:00 – 10:30

Best Practices for Evaluating and Reducing Emissions from Oil and Associated Gas Production

*Moderated by Bent Svensson, World Bank
Global Gas Flaring Reduction Partnership*

An Evaluation of Flare Gas Reduction Opportunities

*Bent Svensson, World Bank
Global Gas Flaring Reduction Partnership*

Estimating GHG emissions for Hydraulically-Fractured Wells in Western Canada

David Tyner, Carleton University

Evaluation of Casing Gas Recovery Options

David Picard, Clearstone Engineering Ltd.

Measurement of Emissions from Oil Storage Tank

David Picard, Clearstone Engineering Ltd.

Progress Toward a New Approach for Detecting and Quantifying Sources of Fugitive Emissions in Industrial Facilities

Matthew Johnson, Carleton University



Municipal Wastewater Subcommittee Meeting and Technical Sessions

Wednesday, 13 March 2013

13:30 – 18:00 **Wastewater Subcommittee Meeting**

13:30 – 13:45 **Welcome and Introductions**

Subcommittee Co-Chairs

- Brief introduction of meeting participants
- Review of meeting goals and/or agenda adoption

13:45 – 15:30 **Country/Area Updates**

Partner Country/Area Delegates

15:30 – 16:00 Break

16:00 – 17:30 **General Discussion of On-going Subcommittee Business/
Action Items for the Year**

Subcommittee Co-Chairs

- Review of Wastewater fact sheet
- Resource Assessments
- Sector/Country Action Plans
- Coordination with CCAC

17:30 – 17:45 **Summary of Action Items Discussed at the Meeting**

Subcommittee Co-Chairs

- Meeting action items
- Specific tasks meeting participants agree to accomplish and report on by next meeting
- Possible agenda topics for the next subcommittee meeting

17:45 – 17:55 **Other Subcommittee Business**

18:00 Adjournment

Thursday, 14 March 2013

11:00 – 12:30 **Wastewater Technical Breakout: Session 1 – Biogas Modeling and Measurement**

Mass Flow Measurement for Bio-Methane Gas Applications
Stephen Cox, Fluid Components International, LLC

The Collection of Biogas Utilization Data in the United States
Bill Toffe, Mid-Atlantic Biosolids Association

First Results of the On-line Methane Measurement at Viikinmäki WWTP
Mari Heinonen, Helsinki Regions Environmental Services Authority HSY

12:30 – 13:30 Lunch

13:30 – 15:30 **Wastewater Technical Breakout: Session 2 – Wastewater Biogas, Part 1 – Energy Recovery**

Summary of WERF Methane and Biogas-CHP-Related Research
John Willis, Brown and Caldwell

An Approach for Energy Recovery from Sewage Sludge Using a Steel Plate Digestion Tank
Keizo Fukuzawa, Japan Institute of Wastewater Engineering Technology (JIWET)

15:30 – 16:00 Coffee Break

16:00 – 18:00 **Wastewater Technical Breakout: Session 3 – Wastewater Biogas, Part 2 – Unique Applications**

Municipal Wastewater Treatment in Latin-America: A Zoom to Mexico with Emphasis in GHG Emissions from Municipal Wastewater Treatment
Adalberto Noyola, Universidad Nacional Autónoma de México

Co-digestion at the Annacis Island Wastewater Treatment Plant: Metro Vancouver's Path to Increase Energy Rich Biogas for Plant Use
Echo Lin and Paul Lam, Metro Vancouver

Wastewater Biogas for Town Gas Manufacture & Upgrade to Natural Gas Quality: a Chilean Experience
Jorge Bonilla Beckmann, Aqualogy Environment Chile

18:00 Adjournment

Friday, 15 March 2013

08:00 – 10:30

[Biogas Cross Cutting Technical Session](#)



Biogas Cross-Cutting Technical Session

Friday, 15 March 2013

08:00 – 10:30

Biogas Cross Cutting Technical Session

08:00 – 09:15

Panel 1: Innovative Models for Developing Biogas Projects

Moderator: Jiwan Acharya, Asian Development Bank

ADB Biogas Program in Asia

Jiwan Acharya, Asian Development Bank

Adding Social Benefits to International Landfill Gas Development Projects

Stan Steury, Appalachian State University

Tapping into the Transportation Fuel Market

Ricardo Hamdan, Greenlane Biogas

09:15 – 10:30

Panel 2: Addressing Methane Emissions from the Biogas Sectors through National Strategies

Moderated by Gary Crawford, Veolia Environmental Services

Ethiopia's Climate Resilient Green Economy Plan/Strategy

Wondwossen Sintayehu, Ethiopian EPA

Mexico's Proposed Solid Waste NAMA

César Rafael Chavez, SEMARNAT

Colombia's Proposed Organic Waste NAMA

Ignacio Santelices, CCAP and Diana Milena Rodriguez, Ministry of Environment and Sustainable Development