

ASIA CLEAN ENERGY FORUM 2018

HARNESSING INNOVATION TO POWER THE FUTURE

Manila, Philippines • 4-8 June 2018



Realising the Potential of Waste to Energy

5 June (Tuesday), 09:00 a.m. - 5:30 p.m.

Multifunctional Hall 2, New Atrium, ADB HQ, Manila.

Background

Waste to Energy has persistently lagged behind other renewable energy sources in the energy transition to decarbonization and distributed generation. This is due to waste to energy straddling both renewable energy and energy efficiency functions in industry. Large plants operate on a stand-alone basis whilst captive and/or distributed power plants operate in diverse applications.

This Deep Dive Workshop seeks to explain the opportunities and explore ways to realise the potential of Waste to Energy in the wider energy transition.

The Waste to Energy DDW will present technologies, business models and the skills needed to successfully implement solutions. Technologies will be explained with examples. These examples will provide valuable insight into the successful implementation of projects.

New business models will be explored which relook at logistics scale and community involvement.

There will be a section on new technologies and how they might be deployed.

Industry leaders will give their views based in experience and share their vision of the future of Waste to Energy.

Objective of the Workshop

The objective of the DDW is to provide an introduction to waste to energy:

1. Highlight technology innovation and emerging trends,
2. Discuss regulatory frameworks and challenges,
3. Highlight innovative technology advances and new business models and
4. Highlight successful implementations and how they overcame challenges.

The workshop agenda will be broken into sessions reflecting these objectives.

At the end of the workshop a document with policy recommendations and implementation advice will be prepared.

This document will form an integral part of a handbook on waste to energy to be shared with ADB member Governments.

Agenda

Time	Activity
9:00- 9:15	Opening remarks by Mr Akmal Siddiq, Chief of Rural Development and Food Security (Agriculture) Thematic Group, Agriculture, Rural Development & Food Security Unit, Sustainable Development and Climate Change Department, Asian Development Bank
9:15 – 9:20	Introduction by Steve Peters, Senior Energy Specialist (Waste to Energy), Energy Group, Sustainable Development and Climate Change Department, Asian Development Bank
	Session 1. Technology & implementation
9:20 - 9:40	Introduction to biomass in rural power - Verena Streitferdt, ERK Eckrohrkessel GmbH
9:40 – 10:15	Biogas and biogas upgrading – Des Godson, Chief Executive Officer, Asia Biogas Pte Ltd
10:15 – 10:50	Incineration of solid municipal waste and biogas from Sewerage Treatment Plants – Gen Takahashi, JFE Engineering Co Ltd
10:50 – 11:10	Coffee Break
	Session 2. Regulatory frameworks and challenges
11:10- 11.25	How biogas fits into the gas market and energy transition - Vincent Choy, Secretary General, Asia Pacific Biogas Alliance
11.25 – 11:40	Challenges faced in the biomass industry – Verena Streitferdt, ERK Eckrohrkessel GmbH
11:40 – 12:00	Setting a regulatory agenda - Professor Yuan Baorong, Director Low Carbon Development Research CECEP, PRC
12:00 – 12:30	Panel Discussion Moderated by Grace Lange, Principal, Lange Group Consulting
12:30 – 14:00	Lunch
	Session 3. Innovative technology advances and new business models
14:00 – 14.15	Waste heat recovery using ORC turbines - Nicolas Bernier, Director, Sustenea Consulting
14:15 – 14.30	Village biogas in India using containerised solution - Sandra Sassow CEO, SEaB Energy Ltd
14.30 – 14.45	Information technology & logistics in waste collection in the age of Apps – Guest speaker
15.00 – 15.20	Waste to fuel and chemicals - Henrik Selstam, ScandGreen Energy
15.20 - 15.40	Innovation in gasification technologies - Associate Professor Kentaro Umeki, Luleå University of Technology
15.40 – 16.00	Coffee Break
	Session 4. Implementation and how to successfully overcome challenges
16.00 – 17.30	Panel Discussion Moderated by Steve Peters, Senior Energy Specialist (Waste to Energy), Energy Group, Sustainable Development and Climate Change Department, Asian Development Bank with: <ul style="list-style-type: none"> • Ed McCartin, Director, Asia Greentech Pte Ltd • Heinrich Seal, President/CEO, CBE Thailand Co Ltd • Gen Takahashi, JFE Engineering Co Ltd • Des Godson, Chief Executive Officer, Asia Biogas Pte Ltd

Speakers

<p>Des Godson, CEO, Asia Biogas</p> <p>Des is an experienced Clean Energy professional, working in the Climate Change and Renewable Energy space for 20 years. Extensive strategic, commercial and deal experience from investment strategy setting, to deal origination, through exit. Experience across Solar PV, Wind, Hydro, Biomass and Biogas sectors. Appointed CEO of Asia Biogas in 2013 and led successful MBO of the business later that year. At Asia Biogas Des has raised financing to fund a number of biogas projects and he led the acquisition of TBEC by Asia Biogas in 2017.</p>	
<p>Vincent Choy, Secretary General, Asia Pacific Biogas Alliance</p> <p>Vincent started the Biogas Asia Pacific Forum in 2011 to ignite the discussion on biogas development in South East Asia, beginning with a partnership with the Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, Thailand. The Forum moved on to involve governments in Malaysia, Vietnam, Indonesia, China, and in 2015, Vincent founded the Asia Pacific Biogas Alliance with the help of the Bio-economy Development Corporation of Malaysia, MOSTI, Malaysia. A keen advocate of seeking higher value use of biogas in order to boost its economic appeal, Vincent has worked tirelessly in expanding the influence of the Alliance to over 14 countries and is now working with the European Biogas Association and the American Biogas Council on establishing the Global Biogas Network.</p>	
<p>Verena Streitferdt, ERK Eckrohrkessel GmbH</p> <p>Verena Streitferdt has over 10 years of work and research experience in the field of project development/ policy advisory on the topics of renewable energy/climate policy, energy/climate finance in the South East Asian context. In her PhD research she explored the interface between the public and private sector to support energy efficiency finance. She has worked as a policy consultant for UNESCAP, Energy research center of the Netherlands, Climate Works Australia and the German development cooperation (GIZ) GmbH. Since January 2017 she assists Eckrohrkessel GmbH in Southeast Asia to identify new business opportunities and provide support to the local licensees to advance the necessary energy transition in the region.</p>	
<p>Dr Yuan Baorong, Director Low Carbon Development Research China Energy Conservation and Environmental Protection Group, CECEP Consulting Co Ltd</p> <p>Dr Yuan Baorong has been working on CECEP Consulting Co. Ltd for nine years. She is currently the Director of the Low Carbon Development Research Center of CECEP Consulting. Dr. Yuan is mainly engaged in consulting services in the fields of energy conservation and emission reduction, environmental protection, renewable energy, carbon trading, etc. Since 2010, Dr. Yuan has been responsible for the judging process of National Key Energy Conservation Technologies Promotion Catalogues in China. She has accumulated rich experience in the application of advanced energy-saving technologies and the policy development of waste to energy programs.</p>	
<p>Grace Lange, Principal, Lange Group Consulting</p> <p>Grace Lange is the founder and principal of Lange Group Consulting, a consulting firm that specializes in financial analysis for energy projects. Grace brings an analytical perspective to her work to find client solutions that deliver both financial and environmental value. From teaching Excel modeling at Yale University to teaching the basics of finance to Cameroonian farmers, Grace's diverse experience explaining financial concepts ensures her work products are understandable and easy to use. Grace created an \$11-million-dollar business opportunity through energy efficiency for a Fortune 500 Company. Grace trained with ICF International, where she worked with clients such as U.S. Agency for International Development (USAID), World Bank, and U.S. Environmental Protection Agency (EPA). She holds a master's degree from Yale University and a bachelor's degree from Dickinson College. She is a native English speaker and proficient in Mandarin, French, and Portuguese.</p>	

<p>Sandra Sassow CEO, SEaB Energy Ltd CEO Sandra Sassow has a proven track record of launching innovative world-class companies that have achieved significant global revenue growth. As CEO of SEaB, She has been chosen the 'Eco Entrepreneur of the Year' at the 2013 Great British Entrepreneur Awards, winning the 2015 Enterprising Woman of the Year award, presenting at COP21 and, more recently, being shortlisted for the Forward Ladies 2016 National Women in Business Awards in the Science, Technology, Engineering in Mathematics category. Sandra is Business Director of the Solent Local Enterprise Partnership, member of WeConnect and the Chartered Institute of Waste Managers, active mentor for the Southampton Science Park Catalyst Program and active participant in the Mayor of London GoToGrow program. Sandra holds a BSc in Biology (Duke University, specialising in Micro-biology) and a Master's Degree in Computer Science. She combines her professional activities with an active family life as a mother of four children and enjoys horseback riding in her spare time.</p>	
<p>Nicolas Bernier, Director, Sustenea Consulting Nicolas Bernier is a former officer in the French Air Force. He has two masters engineering degree and a post master executive degree in Environmental engineering and Sustainable Development. Based in Jakarta since 2015, he is the founder and director of Sustenea, a consulting company providing services in the fields of Energy and Sustainability. He has several partnerships with foreign companies having disruptive and innovative clean energy solutions especially suitable for Southeast Asian market.</p>	
<p>Gen Takahashi, JFE Engineering Gen Takahashi joined Nippon Kokan Ltd. (present JFE Engineering Corporation) in April 1990. After many years' experience in various business fields in this Company ; production control at factory, marketing for sewage treatment plant project, management of sales branch, administration and secretary of the company, etc., he has worked for management and business development as a Director of PT. JFE Engineering Indonesia (subsidiary company of JFE Engineering) in 2011 and 2012. Since April 2013, he has been in charge of global business development with collaboration with ministries, local governments, international organizations and other stakeholders, especially in the field of waste-to-energy.</p>	
<p>Henrik Selstam, ScandGreen Energy Master of Science in Engineering Physics at Chalmers, Sweden with extensive experience in setting up international organizations. Angel investor of high-tech solutions in energy and fertilizing technology. He is the co-founder of Quantafuel AS (former Waste4Fuel) a GTL and plastic to synthetic fuel solution provider. He is a principal of ScandGreen Energy (SGE). SGE offers innovative, financially viable and efficient solutions to reduce pollution generated by municipal solid waste, as well as agricultural residues, forestall or stock breeding activities. SGE solutions include power production, thermal energy, synthetic fuels, fertilizers and other products. Latest achievement setting up a complete production site for synthetic diesel from waste plastics in Mexico.</p>	
<p>Kentaro Umeki, PhD., Associate Professor, Luleå University of Technology, Sweden Kentaro Umeki is associate professor in Energy Engineering at Luleå University of Technology. Umeki has more than 10 years of experiences in both academic and industrial R&D activities related to the utilization of biomass as alternative energy sources to fossil fuels. Especially, his main research interests are thermochemical conversion technologies including gasification, pyrolysis and combustion. Umeki has a PhD from Tokyo Institute of Technology, and received several prizes including research fellowships from Japan Society for the Promotion of Science, Canon Foundation in Europe, and Gunnar Öquist Fellowship. He has contributed >100 scientific publication, public reports, popular scientific articles and conference contributions, and currently serves as a subject assistant editor for an international journal, Applied Energy.</p>	

<p>Ed McCartin, Director, Asia Greentech Pte Ltd Ed is a power generation professional with experience in SE Asia since 1997, focusing largely on renewable energy projects. Ed has “cradle to grave” experience in developing, financing, constructing and operating geothermal, hydro and biomass as well as conventional power stations (complex PPA, EPC, O&M, land use and fuel supply contracts, project finance structures with ECAs / Multi-laterals / commercial banks / capital markets, real hands-on political risk identification, mitigation and insurance expertise, tax/corporate structuring, dispute resolution, restructuring and collection of claims in cross-border infrastructure projects). Ed Has an LLM from the New York University School of Law.</p>	
<p>Heinrich Seul, President/CEO, CBE Thailand Co Ltd Dipl.-Ing. Heinrich Seul (57), is a German engineering personality with 30 years of passion for environmental protection. He is co-founder, President and CEO of CBE Thailand Co., Ltd. an engineering consulting firm based in Bangkok since 2002, advising owners and investor in waste-to-energy and recycling. In his early years he conducted over 40 environmental impact assessments on waste, biomass and hydropower projects in the Brazilian Amazon. He developed an award winning groundwater protection program for German water utilities such as Hamburg Water and ran it for a decade. In 2002 he designed a first groundwater protecting landfill in Shanghai. Since then CBE has advised more than 120 public administrations, investors/donors and local developers on waste technology, clean energy design and successful project leadership.</p> <p>Motto: understand technology, design projects profitable & clean, take active leadership</p>	
<p>Steve Peters, Senior Energy Specialist (Waste to Energy), Energy Group, Sustainable Development and Climate Change Department, Asian Development Bank Steve has recently joined The Asian Development Bank. He is focused on waste to energy (organic fraction of municipal solid waste, gasification, pyrolysis, incineration, plasma gasification, flue gas cleanup and process innovation), biogas (agricultural residues, waste water, factory/mill effluent, household digesters and dry fermentation), biomass (industrial and village level), waste to fuels, solid fuels (pellets, SRF and RDF) and biofuels. His role involves looking at new technologies, innovative business models, new markets, new applications and promoting the use of WTE. This includes the integration of WTE with urban/rural landscapes, transport supply chains, rural power, the environments and health. Steve assists operations inside ADB by finding WTE projects in our energy transition by de-carbonisation and distributed energy business models. Prior to ADB, Steve was MD at The Stratcon Group and CEO of Waste to Energy Pte Ltd.</p>	

About the Organizers and Event

<p>The event has been organized by the SDCC Energy Team.</p> <p>There will be an emphasis on non-business as usual solutions this year. The previous years covered the topic well and provided a broad understanding of the various solutions available.</p> <p>The audience was split 40% private industry (developers, vendors and investors) and 15% each for academia, government, NGOs and Multilateral/Bilateral agencies.</p>
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For any questions, please contact:

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