

ASIA CLEAN ENERGY FORUM 2018

HARNESSING INNOVATION TO POWER THE FUTURE

Manila, Philippines • 4-8 June 2018



KIGALI
COOLING EFFICIENCY PROGRAM

giz

Promoting Efficient, Clean Cooling through Technology and Policy Innovation

5 June 2018, ADB Headquarters

Objective of the Workshop

1. To provide an update on recent international discussions and market developments related to efficient, clean cooling
2. To present technological innovations
3. To present effective policy measures and innovations that enable improved buildings and cooling equipment
4. To provide participants with a list of priority actions and next steps

Agenda

Time	Activity
08:30	Arrival and Networking
	Session 1: Introductory Session – Setting the Scene The session provides an update on recent international discussions and market developments related to efficient, clean cooling Moderator: Toru Kubu, Asian Development Bank Outline: four 10-15 minute presentations followed by facilitated discussion (Questions left until the Group Discussion)
09:00	Efficient, Clean Cooling – Huge Opportunities and Challenges Ahead Dan Hamza-Goodacre, Kigali Cooling Efficiency Program
09:15	The Future of Cooling – Implications for Energy and the Environment Melanie Slade, International Energy Agency
09:30	Maximising Cost and Climate Benefits of Air Conditioning in Asia Philipp Munzinger, GIZ Proklima
09:45	Social and Economic Benefits of Improving Cooling Efficiency Ian Crosby, SE4All
10.00	Facilitated Group Discussion

10:30-11:00	Coffee Break
Session 2: Technology Solutions to Improve Efficiency and Environmental Performance of Cooling This session aims to present technological innovations that enable thermal comfort and reduced energy use for cooling Moderator: Philipp Munzinger, GIZ Proklima	
11:00	System-Level Thinking to Sustainably Meet Our Cooling Demands Professor Toby Peters, Heriot-Watt University
11:30	DeJoule: Cost-Effective AI + IoT to Dynamically Optimize Variable Energy Systems Arjun Gupta, Smart Joules
11:45	Facilitated Group Discussion
12:30-14:00	Lunch and Networking
Session 3: Policy Measures to Improve Cooling Energy Efficiency This session aims to present effective policy measure innovations that enable improved buildings and cooling equipment. Moderator: Melanie Slade, IEA Outline: four 10-minute presentations followed by facilitated discussion	
14:00	Combining energy efficiency and climate action – RAC NAMA Thailand Sirimas Visessri, Head of Efficiency Promotion and Development, Electricity Generating Authority of Thailand and Denise Andres, GIZ Proklima
14:15	Promoting EE Technologies, Finance and Business Models for Developing Countries Venkatesh Dwivedi, Chief Operating Officer, Energy Efficiency Services Limited
14:30	Kigali Amendment to the Montreal Protocol: energy efficiency opportunity Meg Seki, Ozone Secretariat, UN Environment
14:45	Adaptive Thermal Comfort: Practices and Policies Rajan Rawal, Executive Director, Centre for Advanced Research in Building Science and Energy CEPT University, India
15:00	Facilitated Group Discussion
15:30-16:00	Coffee Break
Session 4: What next, take away messages and priority actions This session aims to summarise the key points of the workshop and provide participants with a list of priority actions and next steps. Commitments' from the audience – what will they do differently as a result of attending. Moderator: Dan Hamza-Goodacre, Kigali Cooling Efficiency Program Outline: 60 mins facilitated discussion with Panel and group	
16:00	<ul style="list-style-type: none"> ▪ K-CEP ▪ GIZ Proklima ▪ IEA Summary of next steps and actions
17:00	Meeting Close

Speakers

Toru Kubo, Principal Climate Change Specialist in ADB's Southeast Asia Department.

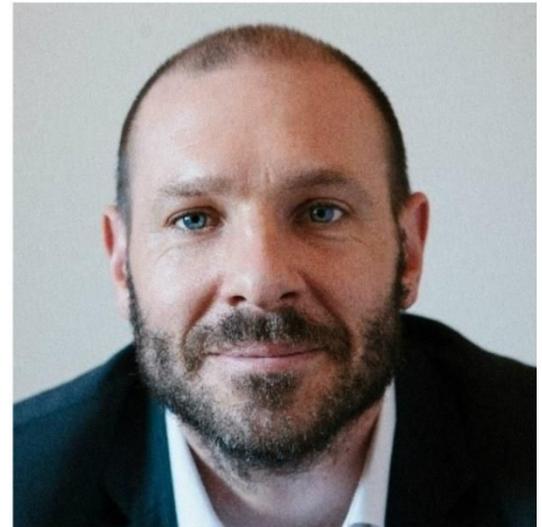
Toru joined ADB in 2004 as the organisation's first full-time climate change staff. He designed and established ADB's Carbon Market Program including one of the world's first post-Kyoto carbon funds, led ADB's work to promote climate change technologies through venture capital funds, and helped establish various other initiatives focused on the nexus of climate change and energy security. In 2011 he was seconded to the UN Framework Convention on Climate Change Secretariat to help design the Green Climate Fund and the Climate Technology Centre and Network. Since 2014 he has focused on clean energy programs and projects in Southeast Asian countries, including a 2 year posting in ADB's Jakarta office to focus on energy and climate change operations in Indonesia. Prior to joining ADB, Toru was Asian Business Manager and Policy Analyst at Trexler Climate and Energy Services, and Research Associate at the American Council for an Energy-Efficient Economy.



Dan Hamza-Goodacre, Executive Director of the Kigali Cooling Efficiency Program

Dan Hamza-Goodacre is the Executive Director of the Kigali Cooling Efficiency Program. Dan has over 20 years of experience working on climate change and sustainable development in the public and private sectors. His work spans all major continents. Previously Dan was Director of Buildings and Industry at ClimateWorks.

Before working in philanthropy, Dan was with PwC, where he was the Deputy CEO of the Climate and Development Knowledge Network (CDKN), a global program funded by the UK and Dutch governments that help developing countries respond to climate change. Dan held various posts at Defra, (the U.K. Environment and Agriculture Ministry), including: Head of the Secretary of State's office; co-founder of the UK's Adapting to Climate Change Program; Adaptation Policy Lead on the UK Climate Change Act and Sustainable Agriculture Advisor. Dan also worked for the UK Foreign Office as a Climate Attaché. He is a regular speaker and moderator at conferences and events and has written widely on climate and development. Dan has an MSc in International Development from Bristol University, where he also was a lecturer and researcher in global environmental politics. In his early career Dan lived and worked in the rainforests of Latin America. He volunteers regularly in schools in support of their 'green' teams.



Melanie Slade, Senior Programme Manager, International Energy Agency

Melanie has spent more than twenty-five years in energy efficiency policy development and implementation in many parts of the world. She started out working in the UK Government on industrial energy efficiency and has worked with many other governments to establish similar programs, perhaps most notably, the Government of China in the 1990s. She also spent six years chairing the Equipment Energy Efficiency Committee – the Australian and New Zealand Government committee overseeing the regulation of minimum energy performance standards and labels for lighting, equipment and appliances. One of the key policies Melanie led while in Australia was the phase-out of inefficient lighting. Australia was second only to Cuba in this endeavor and has shared its experience widely both in the developed and developing world. Melanie moved to the International Energy Agency in February 2014 to manage the Energy Efficiency in Emerging Economies Programme. Melanie and her team work with policy makers in Brazil, China, India, Indonesia, Mexico, South Africa, Thailand and Ukraine to develop more effective energy efficiency policy, track its progress and assess its potential.



Philipp Munzinger, Project Manager, GIZ Proklima

Philipp Munzinger is a project manager with the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH) Proklima. He currently manages various projects in the refrigeration and air-conditioning, focusing on energy efficiency and low GWP refrigerants. Philipp builds on in-depth experience in advising Asian government bodies on climate and energy policy and economics, technology transfer and capacity building programs. He holds a BSc. in Environmental Economics and Business Management and a MSc. in Environmental Sciences.



Ian Crosby, Head, Energy Productivity and Cooling, Sustainable Energy for All

Ian Crosby, is Sustainable Energy for All's Head of Energy Productivity and Cooling. Ian's priority is to stimulate the public and private sector to form partnerships and deliver work programs that contribute to achieving the sustainable development goals. Immediately prior to joining SEforALL Ian spent almost 15 years with the International Finance Corporation in several different roles.

Ian's work has covered a broad range of sectors and topics but has always had a focus on helping the private sector to: improve its Environmental, Social, Trade and Governance standards thereby helping them to gain access to new markets and to finance; promote energy, water and climate resilient solutions that improve productivity and efficiency and reduce climate risk; develop inclusive supply chains to improve the reliability of supply, strengthen its license to operate and create new business opportunities.



Professor Toby Peters, Heriot-Watt University

Toby Peters is a Senior Research Fellow in Transformational Innovation for Sustainability at Heriot-Watt University (Scotland, Malaysia and Dubai) and the Professor in Cold Economy at the University of Birmingham. An award-winning technology developer, he is one of the named inventors of Liquid Air Energy Storage and the architect of the "Cold Economy". He has created and leads much of the new system-level approaches and research around delivering environmentally and economically sustainable cooling and power in both transport and the built environment, and the role "clean cold" has to play in emerging market transformation and sustainably addressing post-harvest food loss in developing economies.



Arjun Gupta, Smart Joules

Arjun P. Gupta is on a mission to eliminate India's need for fossil fuels. He started Smart Joules in 2014 to drive energy efficiency improvements across India's businesses and factories, since efficiency is the most scalable way to tackle climate and economic injustice. Smart Joules makes energy systems intelligent and efficient by deploying self-designed AI and IoT technologies and offers energy reductions to businesses under a unique Pay-As-You-Save business model. Under Arjun's leadership, Smart Joules has grown to a team of more than forty young engineers and has eliminated energy waste equivalent to the annual consumption of more than 6,000 households. It has won national and international recognition including first prize in the 2016 National Energy Conservation Awards from the Ministry of Power, two National Awards for Excellence in Energy Management from CII, and numerous other prizes and media mentions. Arjun is also on the Executive Council of the leading non-profit organization focusing on energy efficiency in India – the Alliance for an Energy Efficient Economy (AEEE).

Arjun was recognized in 2014 as the Economic Times Young Leader by India's top CEOs, in



Sirimas Visessrim, Head, Efficiency Promotion and Development Section, Appliance Efficiency Improvement Department, Demand Side Implementation Division, Electricity Generating Authority of Thailand

Miss Sirimas Visessri has a master's degree in Soil Engineering from Chulalongkorn University, Thailand. She is currently the Head of Efficiency Promotion and Development Section, Demand Side Implementation Division, Electricity Generating Authority of Thailand (EGAT). She is working for high energy-efficient appliances in Thailand, in Label No.5 project.



Denise Andres, GIZ Proklima

Denise Andres is a technical and policy advisor with the GIZ Proklima, focusing on climate-friendly and energy-efficient cooling frameworks and technologies. She is currently working on projects in Thailand, Vietnam, and Indonesia, cooperating with a variety of stakeholders such as government agencies, academic institutions, and the private sector among others. Denise has an MSc in Environmental Policy and Management and is currently taking on a post-graduate certificate programme in Environmental Economics at the SOAS University of London.



Venkatesh Dwivedi, EESL

Venkatesh is the Chief Operating Officer of Energy Efficiency Services Limited, India. He has been the first project manager of EESL's flagship scheme UJALA as well as the SLNP Program. He has been the National Program Manager for the Street Lighting National Program of India.

With more than 25 years of executive experience, he has been earlier in the Oil and Energy Sector in India in various roles in Operations, Technical Services, Project Management and Business Development.

Venkatesh Dwivedi is an Electrical Engineer from Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi and MBA from PGPEX Program of IIM Calcutta. He is a BEE certified Energy Auditor.



Meg Seki, Ozone Secretariat, UN Environment

Megumi Seki is the Deputy Executive Secretary of the Ozone Secretariat, United Nations Environment Programme, and the Secretariat's focal point for the Pacific Island Countries. From 1994 and prior to joining the Ozone Secretariat in 2003, Meg worked in various parts of UNEP, including on global environmental assessment, climate change and interlinkages among multilateral environmental agreements. Meg's work in ozone layer issues started in 1988. She worked in the interim ozone secretariat and was one of the staff members of the Ozone Secretariat when it was formally established in 1989. Between 1991 and 1993, she worked as the first UNEP consultant on country programmes and worked in Fiji, Ghana, Maldives, Syria, Uganda and Zambia with the respective country teams to prepare their first country programmes. Meg



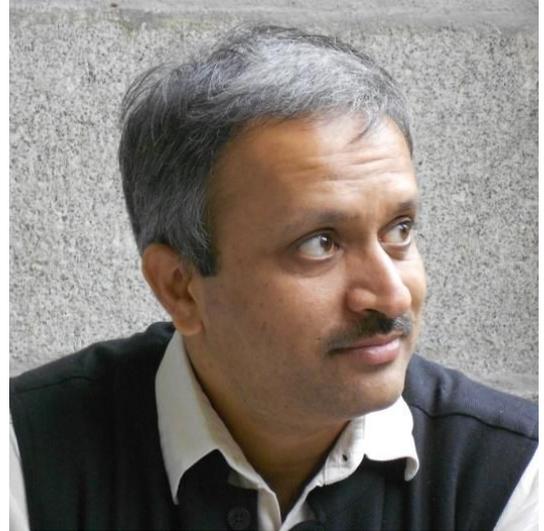
also worked as Regional Network Coordinator for SE Asia ODS Officers' Network between 1993 and 1994.

Meg has an MSc in Environmental Technology from Imperial College, London, and a BSc in Environmental Science from the University of East Anglia.

Rajan Rawal Executive Director, Centre for Advanced Research in Building Science and Energy, CEPT University, India

Rajan Rawal is a faculty member at CEPT University. He teaches energy efficient built habitat, energy modelling, energy policy at postgraduate level. His work emphasis is on 'energy performance of human habitat' and 'architectural science education'.

Presently, He is Executive Director of "Centre for Advanced Studies in Building Science and Energy" (CARBSE) at CEPT University. Prof Rawal leading Indo-US Joint Clean Energy R & D Centre - Building Energy Efficiency Sector, Indo-UK project on Energy Demand Reduction and Mission Innovation challenge on heating and cooling in buildings from India side. He is a member of International Energy Agency task 69 on low energy buildings and senior expert at Global Building Performance Network. Prof. Rawal is a member of various technical committees of Bureau of Energy Efficiency, India, National Building Code, IGBC and GRIHA. He served as a member, Board of Studies and Board of Management at various educational institutes. He is a founder member of India Chapter of He serves at International Building performance simulation association (IBPSA) as Chair of Education at IBPSA Executive committee. He serves as an executive committee member and board of management at several philanthropic and non-governmental organizations. He has a number of research papers, book chapters and projects to his credit.



About the Organisers

IEA - The IEA works to ensure reliable, affordable and clean energy for its 30 member countries and beyond. Our mission is guided by four main areas of focus: energy security, economic development, environmental awareness and engagement worldwide.

Kigali Cooling Efficiency Program - K-CEP engages with countries willing to ambitiously and quickly integrate energy efficiency into solutions to meet the cooling challenge. Partnerships with these countries will help accelerate national and corporate energy efficiency cooling policies, standards, and programs with the potential to reduce emissions and contribute to sustainable development.

GIZ Proklima – for more than 20 years, GIZ Proklima has assisted various countries in transitioning to energy-efficient and climate friendly refrigeration and air conditioning technologies through policy advice, technology transfer and capacity building.

For any questions, please contact:

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