Workshop on energy efficiency opportunities while phasing-down hydrofluorocarbons

9-10 JULY 2018 • VIENNA, AUSTRIA

Biographies

AJAY MATHUR
The Energy and Resources Institute, India

Ajay Mathur is the Director General of The Energy & Resources Institute (TERI), and a member of the Prime Minister’s Council on Climate Change in India. He was Director General of the Bureau of Energy Efficiency in the Government of India from 2006 till February, 2016, and responsible for bringing energy efficiency into our homes, offices, and factories, through initiatives such as the star labelling programme for appliances, the Energy Conservation Building Code, and the Perform, Achieve and Trade programme for energy-intensive industries. He has been a key Indian climate change negotiator, and was also the Indian spokesperson at the 2015 climate negotiations in Paris. He is a global leader on technological approaches to address climate change; and is co-chair of the Energy Transitions Commission, a global group of industrial, financial and think-tank leaders focusing on strategies for companies and countries to move towards climate-friendly energy futures.

ARCHANA WALIA
CLASP, India

Archana Walia brings 24 years of experience dealing with policy formulation and analysis and development of programme strategies in the field of energy and environment. Her experience includes analyzing the economic, institutional, technological and environmental costs and benefits of various regulatory, policy and technological changes especially relating to clean energy and energy efficiency. Serving as the Director of India program at CLASP, she provides leadership, management, and strategic direction to all program activities to ensure the efficient use of resources and achievement of results. She is an environmental scientist and holds a Ph.D degree.

BAFODAY SANYANG
National Environment Agency, Gambia

Bafoday Sanyang works with the National Ozone Office of the National Environment Agency, The Gambia. He holds a Master of Science degree in International Environment Sustainable Development from the National Central University, Taiwan. He also holds a Bachelor’s degree in Education from the
University of the Gambia. In addition to his teaching experience, he has background knowledge in renewable energy and energy efficiency. He previously worked with the Ministry of Energy and Ministry of Higher Education, Research, Science and Technology as Energy Officer and Senior Higher Education Officer respectively.

BASSAM ELASSAAD
Independent consultant, Lebanon

Bassam Ellassaad is a consultant in the field of refrigeration, air-conditioning and heat pumps (RACHP), focusing on environmental and regulatory issues. He is a member of the UN Environment Refrigeration Technical Options Committee (RTOC) and co-chair of the High Ambient Temperature Working Group. He is a member of the Decision XXIX/10 Task Force on Energy Efficiency and a contributing author to the Scientific Assessment of the Climate Impact of the Kigali Amendment and Cooling Efficiency. He is a Professional Engineer (P.Eng.) by the Canadian Professional Engineers Association of Ontario, an ASHRAE Life Member, and a member of the Royal Belgian Engineers Society (ATIC). He holds a master’s degree in Mechanical Engineering.

CHENG JIANHONG
China National Institute of Standardisation

Cheng Jianhong is a Professor working at China National Institute of Standardization, responsible for developing China’s energy efficiency standards for household appliance and commercial equipment, energy system standards; study on energy incentive policies, such as the China energy label, certification of energy conservation products, among others. He is the Secretary-General of the technical committee for standardization of energy system in China and Executive Director of the China Refrigeration Association.

BRIAN MOTHERWAY
International Energy Agency

Brian Motherway is the Head of the Energy Efficiency Division at the International Energy Agency. The IEA in engaging globally on energy efficiency, delivering a range of analytical and outreach programmes and working to build a stronger understanding of how to deliver the full benefits of energy efficiency. Prior to joining the IEA, he was the Chief Executive of the Sustainable Energy Authority of Ireland. He holds Bachelor’s and Master’s degrees in engineering and a PhD in sociology.

CLARE PERRY
Environmental Investigation Agency

Clare Perry is the Climate Campaign Leader at the Environmental Investigation Agency (EIA). With more than 20 years experience working on global environmental issues, Clare leads EIA’s climate campaign which aims to tackle the pressing threat of climate change by eliminating powerful greenhouse gases
used widely in the cooling sector, improving energy efficiency of replacement technologies and investigating the illicit trade in refrigerant greenhouse gases. She has attended meetings of the Montreal Protocol since 2007, was closely involved in the revision of the EU F-Gas Regulation, and advocates the use of climate-friendly alternatives to HFCs in multiple fora around the world. She graduated from the University of Southampton in 1993 with a BSc in biology and subsequently gained a Masters degree in coastal zone management.

**Chris Dunstan**
Institute for Sustainable Futures, Australia

Chris Dunstan is a Research Director at the Institute for Sustainable Futures at the University of Technology Sydney. He has been active in Australian clean energy policy, programs and research since 1990. He played a key role in developing the NSW Greenhouse Gas Abatement Scheme- the world’s first Carbon Emissions Trading Scheme. He was also instrumental in developing Australia’s first Demand Management Code of Practice for Electricity Networks and the NSW Government’s $200 million Climate Change Fund. He often draws inspiration from the Hitchhiker’s Guide to the Galaxy and has recently submitted his PhD thesis on Electricity Demand Management, Sustainability and Least Cost Competition.

**Daniel Magallon**
Basel Agency for Sustainable Energy

Daniel Magallon is an energy efficiency and renewable energy technology, financial, and market specialist with many years of experience developing market-based solutions and financial mechanisms in Asia, Africa, Europe and Latin America. Daniel Magallon is the Managing Director of BASE, a Swiss organization specialized in mobilizing capital to sustainable energy and climate change solutions.

**DAN HAMZA-GOODACRE**
Kigali Cooling Efficiency Program

Dan Hamza-Goodacre is the Executive Director of the Kigali Cooling Efficiency Program (K-CEP). He has over 20 years’ experience working on climate change and sustainable development in the public and private sectors, spanning all major continents. Previously, he was the Director of Buildings and Industry at ClimateWorks Foundation. Before working in philanthropy, he was with PwC, where he was the Deputy CEO of the Climate and Development Knowledge Network (CDKN). He held various posts at Defra, (the U.K. Environment and Agriculture Ministry) and the UK Foreign Office as a Climate Attaché. He is a regular speaker and moderator and has written widely on climate and development. He 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 he lived and worked in the rainforests of Latin America. He volunteers regularly in schools in support of their ‘green’ teams.

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Biographies

DAVID SCHALENBOURG
DELHAIZE, Belgium

David Schalenbourg is responsible for all store-related construction projects and maintenance operations in the retail network of Delhaize in Belgium and Luxemburg. One of his major responsibilities is to drive down the carbon footprint of the brick network and be(come) a sustainable retailer in line with the strategy of Ahold Delhaize group. He graduated as an architect in Brussels, holds a master’s degree in urban planning, and has an extensive experience in sustainable construction and refurbishment projects (residential, retail, office, among others).

EMILIA (MILINA) BATTAGLINI
World Bank

Emilia (Milina) Battaglini is the Program Manager in the World Bank Climate Change Group based in Washington DC. She oversees the Montreal Protocol and Global Environment Facility operations and programmes implemented by the Bank. Prior to her current assignment, she managed the World Bank Latin America and Caribbean Environment and Natural Resources unit. Milina has more than 20 years of experience in environmental and climate change policy and investment operations with a focus on cross-sectoral linkages and global environmental benefits, including biodiversity conservation and sustainable forestry, transboundary water pollution and ozone-depleting substances phase-out in Europe and Central Asia, Latin America and East Asia. While at the World Bank, she spent three years in Sydney, Australia, leading the Bank’s work on policy development and investments for climate resilience in the Pacific Islands countries. She has a degree in political economy and science from Bocconi University of Milan, Italy.

FRANK HOVORKA
European Fed. of Heating and Ventilation Associations

Frank Hovorka has served as the Head of Strategy, Digital, Innovation and ESG of the group QUARTUS dedicated to real estate development since May 2017. He is also involved in research projects for net zero energy buildings and financial indicators for the green value through several research projects and international bodies (SBA, REHVA, RICS, EEFIG, EeMAP, UNEP FI). He started his career in 1990 in the building construction field.

GABRIELLE DREYFUS
Kigali Cooling Efficiency Programme

Gabrielle Dreyfus is a Senior Scientist at the Institute for Governance & Sustainable Development, and Head of Policies, Standards and Programs for the Kigali Cooling Efficiency Program, a philanthropic collaboration housed at the ClimateWorks Foundation to support the Kigali Amendment of the Montreal Protocol by focusing on the transition to efficient, clean cooling solutions for all. Previously she served as the Deputy Director of the U.S. Department of Energy Efficiency Workshop • 9-10 July 2018
Energy, Office of International Climate and Clean Energy, where she led international initiatives and campaigns to strengthen and scale clean energy policy. She developed expertise in applying science to inform climate, energy, environmental, and international policy through a series of fellowships in the U.S. Senate, National Oceanic and Atmospheric Administration, and Department of Energy. She received a doctorate in Geosciences from Princeton University and the University of Pierre and Marie Curie for her research reconstructing climate change history from Antarctic ice core records.

**Hakam Adel Zummo**

Saudi Energy Efficiency Programme, Saudi Arabia

Hakam Adel Zummo has more than 20 years of working experience in many fields, including project management, the power sector, SCADA and communication, power data collections and analysis, tariffs setting, customer problems resolution, power sector KPIs, energy efficiency policies and standards, and energy usage index.

**Gunter Fischer**

Global Energy Efficiency and Renewable Energy Fund, European Investment Bank Group

Gunter Fischer is a Senior Investment Officer with the European Investment Bank (EIF) focusing on the Global Renewable Energy and Energy Efficiency Fund. He is responsible for the sourcing, origination, assessment, negotiation and monitoring of renewable energy and energy efficiency investments in emerging markets and developing countries. He has more than 15 years of fund experience, including from managing the European Investment Fund’s first external mandate Fund of Funds, targeting venture capital and private equity investments in Germany. In this context, he gained in depth knowledge of the due diligence and structuring of fund investments. Prior to EIF, Dr Fischer was with the corporate finance practice of Arthur D. Little in Berlin. He holds degrees in business administration and law from Reims Management School and the University of St. Gallen and a PhD in finance from the European University in Frankfurt, Germany.

**Helen Walter-Terrinoni**

Chemours, USA

Helen Walter-Terrinoni earned a Master’s degree in chemical engineering with a concentration in environmental engineering from Syracuse University. She has worked on environmental and sustainability issues for more than two decades through a number of roles. She spent seven years managing the foaming agent, low GWP, development programme and now has responsibility for sustainable development for all uses covered by the Montreal Protocol. She has been evaluating and working on LCA’s for insulation and refrigeration for the past nine years and does a significant amount of GWP and ODP modelling. She is a co-chair of the Montreal Protocol Foams Technical Options Committee and a member of the Technical and Economic Assessment Panel.
Biographies

**HÉLÈNE ROCHA T**
Topten, Switzerland

Hélène Rochat is a project manager at Topten and works on policy-related matters for the EU Ecodesign and Energy Label regulations to promote energy efficient products. Her works involve research on products markets, their development and product testing to achieve better regulation. A Swiss national, she is fluent in English, French, Italian and German. She holds a Master’s degree in Environmental Sciences (MSc. ETH) from the ETH Zurich. She is a member of the TEAP Energy Efficiency Task Force.

**JANE GARTSHORE**
Cool Concerns, United Kingdom

Jane Garthshore co-owns and runs a UK-based business that specialises in ensuring industry gets the very best out of the low GWP refrigerants, including HCs and R744. Her business train's engineers worldwide to work safely with these refrigerants and advise clients how to apply them. This work is underpinned by their involvement in standards development. She is also one of the main technical consultants in the EU REAL Zero / REAL Alternatives projects, which provide practical information to industry on reducing leakage and applying low-GWP alternatives to HFCs.

**HOWARD GELL ER**
Southwest Energy Efficiency Project, USA

Howard Geller is the Executive Director of the Southwest Energy Efficiency Project (SWEEP), a public interest venture he founded in 2001. He also leads SWEEP's work on utility policy and programs. As a result of SWEEP's efforts, energy efficiency initiatives have greatly expanded in Arizona, Colorado, Nevada, New Mexico and Utah in the United States of America. He is the former Executive Director of the American Council for an Energy-Efficient Economy (ACEEE) and author or co-author of four books.

**JIGAR V. SHA H**
International Finance Corporation

Jigar V. Shah is a Principal Industry Specialist at IFC and his role is to facilitate investments related to climate business. Previously he was the Executive Director of the Institute for Industrial Productivity (IIP), an international non-profit organization with a mission to improve energy efficiency in industry. He has worked globally in manufacturing and clean energy sectors. Jigar has a PhD in Chemical Engineering and has taught graduate courses on clean energy as an Adjunct Professor at McMaster University, Canada, and George Washington University, USA.
Biographies

**JONATHAN LI**
Midea Group, China

Jonathan Li is the Technical Support Manager in the overseas sales company of Midea Group, where he has worked for over eight years. He has a good knowledge of consumer requirements and product development. He has worked as a technical support engineer for almost every continent and has a good sense of the market trends and corresponding regulations. In the past years, he has worked closely on F-gas related regulations and the Kigali Amendment to help customers to better understand, prepare for and respond to the new regulations.

**KEVIN SCHLEMMER**
CoolCheck, South Africa

Kevin Schlemmer is a subject matter expert in the field of refrigeration and air-conditioning with over 25 years of experience in the South African market. His solid background in system design combined with many years of practical applications experience, positions him to offer valuable insights in the field of cooling systems, cooling system optimisation and energy efficiency. In particular, his exposure to both the refrigeration and air-conditioning sectors enables him to provide unique perspectives on the topic. In 2015, he started CoolCheck (Pty) Ltd, a consulting company that brings focus to energy efficiency and optimisation through remote monitoring and data analysis within the HVACR industry.

**KEVIN FAY**
Alliance for Responsible Atmospheric Policy

Kevin Fay is recognized as a successful businessman, community leader, and as one of the foremost global environmental policy advocates over the last three decades. As Executive Director of the Alliance for Responsible Atmospheric Policy, he provides critical industry leadership and perspective on the negotiation and implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer and the United States Clean Air Act. He also serves as the Vice Chairman and Chief Executive Officer of Alcalde & Fay, in Arlington, Virginia, a public and government affairs firm in the Washington, D.C. area.

**KOFI ADU AGYARKO**
Energy Commission, Ghana

Kofi Adu Agyarko is the Director of Renewable Energy, Energy Efficiency and Climate Change at the Energy Commission in Ghana. He has 16 years’ experience in the energy sector. He has designed and successfully implemented a number of energy efficiency projects. His contribution was critical in the 2007 mass CFL exchange programme in Ghana and the installation of capacitor banks in selected public buildings, which save the nation 124MW annually and US$50,000 monthly respectively. He managed the GEF/UNDP funded project
on Energy Efficient Refrigerators and Market Transformation in Ghana that resulted in annual savings of 400GWh Ghana. His contribution to energy efficiency issues in the media and seminars have positioned the Energy Commission as a credible institution both in Ghana and abroad. He obtained a Bachelor of Science Degree in Finance and Banking from the School of Administration, Legon, and a Master of Science Degree in Energy Management from Norwegian School of Management.

**KUMAR SAURABH**
Energy Efficiency Services Limited

Kumar Saurabh has about 15 years’ experience in the power sector, regulatory, contract management and international and domestic energy efficiency. He is currently the Deputy General Manager (Technical and Contracts) with Energy Efficiency Services Limited, a joint venture of public sector undertakings under the Ministry of Power in the field of project, appraisal management and consultancy regarding implementation of energy efficiency projects. This includes demand side management, contracts and procurement management and preparation of strategic papers for SAARC countries like Bhutan, Cambodia and Maldives on HCFC Phase-out under the Montreal Protocol. He holds a Bachelor's degree and higher diploma in Mechanical Engineering from King Abdul Aziz University, Saudi Arabia, and Masters of Business Administration in Finance from Leicester University, UK.

**MAHER MOUSA**
International consultant, Saudi Arabia

Maher Mousa is an engineering consultant and technical expert in building construction and HVAC industries. He has developed a strong base over years to become a leading actor in supporting the sustainability culture in the Middle East region. With the objective of balanced environmental policy he has been serving in the Montreal Protocol community since 2013 through national and international efforts in the fields of environmental policy and institutional development. He is currently working as an independent consultant through his office serving both private and public sectors. He has a Bachelor’s degree and higher diploma in Mechanical Engineering from King Abdul Aziz University, Saudi Arabia, and Masters of Business Administration in Finance from Leicester University, UK.

**MARIA T. VARGAS**
ENERGYSTAR, United States

Maria T. Vargas is a Senior Program Advisor at the Department of Energy and the Director of DOE’s Better Buildings Initiative. The goal of this broad program is to work with leaders in the public and private sectors to make American buildings at least 20 percent more efficient in the next decade. Prior to her work at DOE, she was the Brand Manager for the ENERGY STAR program for almost 20 years while at the US Environmental Protection Agency. She has been involved in policy work on the issues of ozone depletion, global climate change, and related environmental and energy issues.
Nguyen Thi My Hoang has over 18 years of experience in fields of environment and climate change through a set of positions in the Vietnam Environmental Administration, Deputy Director of Division of Green House Gas emission reduction and ozone layer protection/National Ozone Coordinator, Head of National Ozone Unit, Department of Climate change, Ministry of Natural Resource and Environment (MONRE). He collaboratively works with other energy efficiency engineers and programme administrators as well as product management and staff engineers to be proactive in acquiring energy efficiency projects to reach performance targets and goals. He previously worked as an Application Engineer with Zamil Air Conditioners. He holds a Master’s degree in Engineering Systems Management from St. Mary’s University and a Bachelor’s degree in Mechanical Engineering Technology from Jubail Industrial College.

Mark Radka heads UN Environment’s Energy and Climate Branch, where he is responsible for managing the organization’s efforts to link the global energy and climate mitigation agendas. UN Environment’s work in this area focuses on reducing emission of greenhouse gases through improved energy efficiency and supporting engagement by the financial industry in the sustainable energy sector. He has a special interest in the technology needs of developing countries, and was a coordinating lead author of the IPCC's Special Report on Methodological and Technological Issues in Technology Transfer. He received a Master of Public Policy degree from Harvard University, and engineering degrees from the University of California at Berkeley and the Massachusetts Institute of Technology.

Nihar Shah, a Senior Scientific Engineering Associate, leads Lawrence Berkeley National Laboratory (LBNL)’s research on low-GWP refrigerants and energy efficiency for Heating, Ventilation, Airconditioning and Refrigeration (HVAC&R) equipment. He is currently leading LBNL projects on air conditioning and

Mohammed F. AlArwan

Saudi Energy Efficiency Centre

Mohammed F. AlArwan is a Standardization and Metrology Specialist at Saudi Energy Efficiency Centre. He is a member of the building, testing, inspection and certification team in the Saudi Energy Efficiency Program (SEEP). He collaboratively works with other energy efficiency engineers and programme administrators as well as product management and staff engineers to be proactive in acquiring energy efficiency projects to reach performance targets and goals. He previously worked as an Application Engineer with Zamil Air Conditioners. He holds a Master’s degree in Engineering Systems Management from St. Mary’s University and a Bachelor’s degree in Mechanical Engineering Technology from Jubail Industrial College.
Ray Gluckman is a highly experienced technical and management consultant with over 35 years of experience in the fields of refrigeration, energy efficiency and climate change. He is a leading authority on reducing emissions of the powerful fluorinated greenhouse gases (the “F Gases”, HFCs, PFCs and SF6), which are mainly used as refrigerants. He has worked on projects related F-Gases for nearly 25 years and has acted as a technical advisor in this field to the many private sector clients and to public sector organisations including the UK Government, the European Commission, the United Nations and the World Bank. He is also an expert on energy efficiency and has carried out many projects related to the efficient use of refrigeration and air-conditioning systems. He was the President of the UK Institute of Refrigeration in 1995 and 1996. He received the Cooling Industry Gold Award in 2011.

Ray Gluckman
Gluckman Consulting, UK

Raul Simonetti received a degree in Electronic Engineering from the University of Trieste (Italy) in 1992. Following employment at DANIELI S.p.A., working in the design and set-up of automation systems for rolling mills, in November 2000 he joined CAREL as Climate Systems Application Manager. He worked with OEM customers on custom and new product requirements. He was also responsible for technical training and support on humidifiers and evaporative-cooling systems. Since August 2015, he has served as HVAC/R Corporate Business Manager, taking care of the legislative and normative landscape in EU, USA, China, Australia, Japan and other countries. He acts as CAREL Industries SpA’s Representative at EPEE, a EU-based Association of heating and cooling companies. He is a member of ASHRAE CEC and ASHRAE Technical Committee TC 5.11 Humidification Equipment.

Raul Simonetti
CAREL, Italy

Peter Holzer is an engineer, dedicated researcher, teacher and consultant for sustainable building design. He holds a degree in Mechanical Engineering and a PhD from the Faculty of Architecture, both from the Technical University of Vienna, Austria. He directs a consultancy office, www.jung-ingenieure.at and is an associate of the Institute of Building Research and Innovation, both in Vienna.

Peter Holzer
Institute of Building Research and Innovation, Austria

Peter Gluckman
Gluckman Consulting, UK

Ray Gluckman
Gluckman Consulting, UK

Raul Simonetti received a degree in Electronic Engineering from the University of Trieste (Italy) in 1992. Following employment at DANIELI S.p.A., working in the design and set-up of automation systems for rolling mills, in November 2000 he joined CAREL as Climate Systems Application Manager. He worked with OEM customers on custom and new product requirements. He was also responsible for technical training and support on humidifiers and evaporative-cooling systems. Since August 2015, he has served as HVAC/R Corporate Business Manager, taking care of the legislative and normative landscape in EU, USA, China, Australia, Japan and other countries. He acts as CAREL Industries SpA’s Representative at EPEE, a EU-based Association of heating and cooling companies. He is a member of ASHRAE CEC and ASHRAE Technical Committee TC 5.11 Humidification Equipment.

Raul Simonetti
CAREL, Italy

Ray Gluckman
Gluckman Consulting, UK

Raul Simonetti
CAREL, Italy

Biographies
Richard Lord is a Senior Fellow with 45 years of experience in the design and application of commercial air condition equipment and controls with expertise in systems, fluids, refrigerants, heat transfer, heat exchanger design, software, controls, diagnostics and commercial efficiency and building standards and controls. He is also an ASHRAE Fellow. He is located in Murfreesboro, Tennessee, in the United States of America and is a presently a member of Innovation and Research Group working on refrigerants and commercial equipment and systems innovation as well as regulations and industry standards and research. He holds a BSME from Clarkson University. He has 46 patents and has received several Carrier and industry awards in the field of heating, ventilating and air conditioning, including the Dr. Willis H. Carrier Award for Engineering Excellence, the UTC Horner Award, 2016 President’s Award Compliance Excellence, and the AHRI Richard C. Schulze Distinguished Service Award.

Sabin Basnyat is the Senior Energy Efficiency Specialist in the Division of Mitigation and Adaptation at the Green Climate Fund. He has 20 years of experience in energy and energy efficiency from auditing, program management to investment. He began his career as a fabrication engineer designing and installing micro hydro systems in the rural hills of Nepal. He then moved to the industrial side as an energy auditor conducting and supervising more than 150 audits for all types of manufacturing industries as well as commercial buildings. He moved on to work for the International Finance Corporation – World Bank Group as a technical specialist to generating energy efficiency deals for the IFC. Aside from direct advisory work and investment due diligence for clients, he was also responsible for market-level work and new products for energy efficiency financing; at the corporate level he was an architect for IFC’s Climate Investment Tracking methodology and system. He also managed the Resource Efficiency Programme at UN Environment, which focused on developing national policies on sustainable consumption and production and green economy.

Santiago Creuheras is currently the Director General of Energy Efficiency and Sustainability at the Ministry of Energy of Mexico. He served as Chairman for the International Partnership for Energy Efficiency Cooperation. Previously, he held various positions in the public sector among them Advisor to the Minister of Energy, Advisor to the Minister of Finance and Public Credit, Deputy Director General for Domestic and Foreign Policy at the Office of the President of Mexico, and Director General for Labor Training at Ministry of Labor and Social Welfare of Mexico. He completed his bachelor’s degree in Economics at the University of the Americas in Puebla, Mexico, and he obtained two master degrees in Government and Economic History from Harvard University, U.S.A. He obtained a master’s degree in Sustainability Leadership from the University of Cambridge, U.K.
Biographies

**STEFAN THIE**
European Partnership for Energy and the Environment

Stefan Thie has served as a Technical Consultant for the European Partnership for Energy and the Environment (EPEE) since 2017. He has been active in the RACHP industry since 1991. He has held management positions in Japanese and German companies. He has expertise in the fields of air conditioning, refrigeration and heat pumps. He works with several international industry associations in Europe and is a member of European standardization committees for air-conditioning and heat pump products.

**STEPHAN SICARS**
UNIDO

Stephan Sicars holds a Master’s degree in Mechanical Engineering from the University of Hanover, Germany, specialised in Energy- and Process Engineering. He was working for, and subsequently managing, the Research Centre for Refrigeration and Heat Pumps (FKW) in Germany. Later, he worked as a consultant on environmental issues undertaking research projects for clients such as international industries, NGOs and governments. He implemented Montreal Protocol projects in India and China, and for eight years, he was part of delegations to the Executive Committee of the Multilateral Fund and to the Meeting of the Parties of the Montreal Protocol. He was a member of the Refrigeration Technical Option Committee and of the TEAP task forces, was also a coordinating lead author for IPCC, and received the US-EPA Ozone Award. Subsequently, he worked as a Senior Programme Officer with the Multilateral Fund. In June 2014, he was appointed Director of the Montreal Protocol Branch, and in February 2015, Director of the newly created Department of Environment of UNIDO.

**TADAFUMI MIKOSHI**
CRS and Global Environment Centre, Daikin, Japan

Tadafumi Mikoshi is the Global Project Manager for Daikin Industries Ltd. His responsibilities include overall promotion of new refrigerants and market communication regarding environmental issues. His work involves promoting lower GWP refrigerant solution “R32” globally and providing technical support to developing nations. He joined Daikin as an industrial robot designer in 1985. At Daikin headquarters in Osaka, Japan, he has worked in the departments of new business development, corporate planning, refrigeration business development, and CSR and Global Environment Centre. He holds a master’s degree from Kyoto University.

**TOBY PETERS**
University of Birmingham, UK

Toby Peters is a Professor in cold economy at the University of Birmingham, a Fellow of the university’s Institute for Global Innovation and a Senior Research Fellow in Transformational Innovation for Sustainability at Heriot-Watt University. He was one of the inventors...
of Liquid Air Energy Storage and the co-founder of Highview Power and Dearman Engine Company. 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, including sustainably addressing post-harvest food loss in developing economies.

**ZH AO M IN G**

Energy Management Company Association, China

Zhao Ming has been working as the Deputy Director and Secretary General of EMCA since 2005. She has been responsible for daily operations of this national organization in China for more than 10 years. Her work covers energy efficiency consulting, training, marketing, membership management, information dissemination and international cooperation. She has been working on energy-related business for about 20 years, starting from being a consultant on environment protection and management system, to energy efficiency, especially energy management service. After her studies in the UK on EMS, she focused on the promotion of the ESCO industry in China, supported by the World Bank, Global Environment Facility, the Chinese Ministry of Finance and the National Development Reform Commission (NDRC). She made a great contribution to the national policies for ESCO promotion and was also deeply involved in the national five-year plan. She has close contacts with both ESCOs and energy consumers, government agencies and international organizations due to the national ESCO industry platform she is working on. Her six-month stint as a visiting scholar at the Lawrence Berkeley National Laboratory in the United States helped her to expand her international knowledge about energy efficiency and its financing. She is currently working as the co-leader of the US-China EPC pilot programme and co-chair of the Asia-Pacific ESCO Industry Alliance.

**VEERLE BEELAERTS**

Directorate General for Energy, European Union

Veerle Beelaerts is a Policy Officer at the Directorate General for Energy Union and Climate of the European Commission in Brussels Belgium. She works on energy efficiency of products (European Ecodesign and Energy Labelling) amongst which air conditioners, heat pumps and household refrigerating appliances. Previously, she worked in regulatory affairs in Europe and in the Middle East for a company active in the heating, ventilation, air conditioning and refrigerating sector. She holds a PhD in Engineering from the Free University in Brussels, Belgium.