



Virtual Workshop on Low Carbon Cooling

23-25 March 2022 (Tokyo time)

Draft AGENDA as of 18 February 2022

Day One: 23 March 2022	
9:50 - 10:00 Tokyo time (10 minutes)	Introduction (technical guidance and speakers' group photo) Dina Azhgaliyeva , Research Fellow, Asian Development Bank Institute (ADBI), Japan
10:00 - 10:10 (10 minutes)	Opening Remarks Tetsushi Sonobe , Dean and CEO, ADBI, Japan
10:10 – 11:55 (105 minutes)	<p>Session I. Solutions for environmentally friendly cooling technologies</p> <p>Chair: Martina Bosi, Senior Energy Economist, Energy Sector Management Assistance Program (ESMAP), The World Bank, United States</p> <p>Paper 1: <i>Solutions to reduce the need for cooling</i> Presenter: Wei Feng, Research Scientist, Energy Analysis and Environmental Impact, Lawrence Berkeley National Laboratory, United States Discussant: Brian Dean, Head, Energy Efficiency and Cooling, Sustainable Energy for All, Austria Question and Answer (Q&A)</p> <p>Paper 2: <i>Financial solutions to invest in climate-friendly cooling</i> Presenter: Bo Shen, Research Scientist, Energy Analysis and Environmental Impact, Lawrence Berkeley National Laboratory, United States Discussant: Ying Fan, Dean, School of Economics and Management, Beihang University, People's Republic of China Q&A</p> <p>Paper 3: <i>Policy solutions to enable climate-friendly cooling</i> Presenter: Feng An, Executive Director, Innovation Center for Energy and Transportation, United States Discussant: Jeong Won Kim, Research Fellow, Energy Studies Institute, National University of Singapore, Singapore Q&A</p>
115 minutes	Long break
13:50-14:00 (10 minutes)	Introduction (technical guidance and speakers' group photo) Dina Azhgaliyeva , Research Fellow, ADBI, Japan
14:00 – 15:10 (70 minutes)	<p>Session II. Cooling efficiency and resources for cooling</p> <p>Chair: Yolanda Fernandez Lommen, Country Director, People's Republic of China Resident Mission, Asian Development Bank, People's Republic of China</p> <p>Paper 4: <i>Cooling efficiency improvement</i> Presenters: Jingliang Chen, Deputy Secretary General, China Refrigeration and Air-Conditioning Industry Association (CRAA), People's Republic of China and Lulu Liu, Deputy Director/Senior Engineering, Technical Department, CRAA, People's Republic of China</p>

	<p>Discussant: Soumya Garnaik, Executive Director, Energy Efficiency Services Limited, India</p> <p>Q&A</p> <p>Paper 5: <i>Thermal energy storage and cooling load response</i> Presenter: Nastaran Barhemmati, Thermal Energy Scientist, Chemistry R&D, Viking Cold Solutions Inc, United States and Alessandro Romagnoli, Cluster Director of Multi Energy Systems, Energy Research Institute, Nanyang Technological University, Singapore Discussant: Poh Seng Lee, Executive Director, Energy Studies Institute, National University of Singapore, Singapore Q&A</p>
Day Two: 24 March 2022	
13:50 - 14:00 Tokyo time (10 minutes)	<p>Introduction (technical guidance and speakers' group photo) Dina Azhgaliyeva, Research Fellow, ADBI, Japan</p>
14:00 - 15:10 (70 minutes)	<p>Session III. District-related cooling technologies</p> <p>Chair: Clotilde Rossi di Schio, Advisor, Innovation Fund, European Investment Bank, Luxembourg</p> <p>Paper 6: <i>Cooling needs and its associated impacts</i> Presenter: Mikael Jakobsson, CEO, NXITY, Hong Kong, China; Executive Director, Asia Pacific Urban Energy Association, Thailand Discussant: Wei Feng, Research Scientist, Energy Analysis and Environmental Impact, Lawrence Berkeley National Laboratory, United States Q&A</p> <p>Paper 7: <i>District cooling</i> Presenter: Alfredo Bano Leal, Senior Energy Specialist, ADB, Philippines and Jun Onn Khor, Research Fellow, Nanyang Technical University of Singapore, Singapore Discussant: Jingliang Chen, Deputy Secretary General, China Refrigeration and Air-conditioning Industry Association, People's Republic of China Q&A</p>
35 min	Short break
15:45 - 16:55 (70 minutes)	<p>Session IV. Policies and Regulations for Climate-friendly Cooling</p> <p>Chair: Melanie Slade, Senior Programme Manager, Energy Efficiency in Emerging Economies Programme, International Energy Agency, France</p> <p>Paper 8: <i>International agreements and targets</i> Presenter: Jeong Won Kim, Research Fellow, Energy Studies Institute, National University of Singapore, Singapore Discussant: Shu Tian, Senior Economist, Economic Research and Regional Cooperation Department, Asian Development Bank, Philippines Q&A</p> <p>Paper 9: <i>Technological development and innovation of cooling technologies</i> Presenter: Sheng Zhong, Research Fellow, Energy Studies Institute, National University of Singapore, Singapore</p>

	Discussant: Rahul Srinivasan , Energy Specialist, Energy Sector Management Assistance Program (ESMAP), The World Bank, United States Q&A
Day Three: 25 March 2022	
13:50 - 14:00 Tokyo time (10 minutes)	Introduction (technical guidance and speakers' group photo) Dina Azhgaliyeva , Research fellow, Asian Development Bank Institute (ADBI), Japan
14:00 - 15:45 (105 minutes)	Session V. Climate-friendly Refrigerants and Digitalization Chair: Priyantha D.C. Wijayatunga , Chief of Energy Sector Group, Sustainable Development and Climate Change Department, ADB, Philippines Paper 10: <i>Digitalization</i> Presenter: Jing Liu , Chief Technology Officer, R&D Department, Beijing Qingting Internet Technology Co., Ltd, People's Republic of China Discussant: Yixin Yao , Senior Research Fellow, ADBI, Japan Q&A Paper 11: <i>Climate-safe refrigerants</i> Presenter: Zhaohui Zhang , Vice Chairman & Secretary General, China Refrigeration and Air-conditioning Industry Association (CRAA), People's Republic of China and Ruonan Wang , Deputy Director, Technical & Standard Department, CRAA, People's Republic of China Discussant: TBD Q&A Paper 12: <i>Cold economy</i> Presenter: Toby Peters , Professor of Cold Economy, Co-Director, Centre for Sustainable Cooling, Chemical Engineering, University of Birmingham, United Kingdom Discussant: TBD Q&A
15:45 - 16:20 (35 minutes)	Session VI. Knowledge product output Chair: Akiko Terada-Hagiwara , Principal Economist, Office of Director General, East Asia Department, ADB, Philippines Bo Shen , Research Scientist, Energy Analysis and Environmental Impact, Lawrence Berkeley National Laboratory, United States Dina Azhgaliyeva , Research Fellow, ADBI, Japan Alfredo Bano Leal , Senior Energy Specialist, ADB, Philippines Q&A
16:20 - 16:30 (10 minutes)	Concluding Remarks Peter Morgan , Senior Consulting Economist, Vice Chair of Research, ADBI, Japan

[Note: 35 minutes for each paper – 15 minutes presenter, 10 minutes discussant, 10 minutes Q&A]