MIT Industrial Liaison Program Faculty Knowledgebase Report

Scaling up low-carbon energy: Economic, geopolitical, and environmental impacts

July 7, 2020 10:00 am - 11:30 am

10:00am - 10:05pm	Opening Remarks CJ (Changjie) Guo Program Director MIT Corporate Relations CJ (Changjie) Guo Program Director MIT Corporate Relations Dr. CJ Guo joined the Office of Corporate Relations as a Senior Industrial Liaison Officer in July, 2015. CJ comes to OCR with 25 years of extensive global experience in technology innovations, portfolio management and business development in emerging and conventional energy sectors with leading multinational corporations in the US, China and Canada. CJ is a leading expert in emerging energy technologies and energy system transitions. With Shell, he was the Emerging Technology Theme Leader in China/Beijing (2011 to 2015), worked extensively with the Chinese energy communities on the country's future energy landscape, and the Senior Technology Advisor in alternative transportation fuels in the US / Houston (2006-2010), and served during 2010 as Chairman of the Fuel Operations Group for the US DOE FreedomCar Partnership. Prior to joining Shell, CJ has held technology development, commercialization and management positions with Air Liquide (2002-2006) and The BOC Group (1995-2001) after working as a research scientist in oil-sands upgrading with CANMET in Canada (1992-1994). CJ earned his Ph.D., Chemical Engineering, at CSU, Ohio, his M.S. and B.S., Chemical Engineering at TYUT, China. He has earned various awards from Shell, Air Liquide, BOC, Shanxi Province (China). He holds many patents and has sat on the board of Shenzhen Sanmu Battery Technology Company as an independent board member during 2009-2010.
10:05am - 10:15am	Introduction and framing Robert Armstrong Director, MIT Energy Initiative (MITEI) Chevron Professor of Chemical Engineering MIT Department of Chemical Engineering Robert Armstrong Director, MIT Energy Initiative (MITEI) Chevron Professor of Chemical Engineering MIT Department of Chemical Engineering Robert C. Armstrong is MITEI’s director and the Chevron Professor of Chemical Engineering. A member of the MIT faculty since 1973, Armstrong served as head of the Department of Chemical Engineering from 1996 to 2007 and has directed MITEI since 2013, after serving as the organization’s deputy director from 2007-2013 with founding director Ernest Moniz. His research is focused on pathways to a low-carbon energy future. Armstrong has been elected into the American Academy of Arts and Sciences (2020) and the National Academy of Engineering (2008). He received the 2006 Bingham Medal from the Society of Rheology, which is devoted to the study of the science of deformation and flow of matter, and the Warren K. Lewis Award and the Professional Progress Award in 1992, both from the American Institute of Chemical Engineers. Armstrong was a member of MIT’s Future of Natural Gas and Future of Solar Energy study groups. He advised the teams that developed MITEI’s most recent reports, The Future of Nuclear Energy in a Carbon-Constrained World (2018) and Insights into Future Mobility (2019), and is co-chairing the new MITEI study, The Future of Storage. He co-edited Game Changers: Energy on the Move with former U.S. Secretary of State George P. Shultz. View full bio

10:15am - 10:40am

Scaling up low-carbon energy
Sergey Paltsev

Deputy Director, MIT Joint Program on the Science and Policy of Global Change
Senior Research Scientist, MIT Energy Initiative and MIT Center for Energy and Environmental Policy Research (CEEPR)
Director, Energy at Scale Center

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Dr. Sergey Paltsev is a Deputy Director of the MIT Joint Program on the Science and Policy of Global Change and a Senior Research Scientist at MIT Energy Initiative and MIT Center for Energy and Environmental Policy Research (CEEPR), Massachusetts Institute of Technology (MIT), Cambridge, USA. He is the lead modeler in charge of the MIT Economic Projection and Policy Analysis (EPPA) model of the world economy. His research covers a wide range of topics including energy economics, climate policy, taxation, advanced energy technologies, and international trade. Sergey is an Advisory Board Member for the Global Trade Analysis Project (GTAP) Consortium and a Member of the Economy-Wide Modeling Panel for the US Environmental Protection Agency (EPA) Science Advisory Board. Dr. Paltsev is an author of more than 100 peer-reviewed publications in scientific journals and books. He is a recipient of the 2012 Pyke Johnson Award (by the Transportation Research Board of the National Academies, USA, for the best paper in the area of planning and environment), the Best Policy Analysis Paper of 2012 by Environmental Science and Technology Journal of the American Chemical Society and the Best 2004 Research Award by Tokyo Electric Power Company, Japan. Sergey was a Lead Author of the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). In 2007-2008 Dr. Paltsev was a member of the Expert Panel on the Economics of Climate Change for the U.S. Government Accountability Office (GAO). Before joining MIT in 2002, Sergey Paltsev worked as a Consultant for International Management and Communication Corporation and The World Bank, and as an Executive Director of the Program in Economics and Management of Technology at Belarusian State University. He received a Diploma in Radiophysics and Electronics from Belarusian State University and PhD in Economics from University of Colorado at Boulder.

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10:40am – 11:25am

Industry panel discussion
Robert Armstrong

Director, MIT Energy Initiative (MITEI)
Chevron Professor of Chemical Engineering
MIT Department of Chemical Engineering

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Vijay Swarup
Vice President for Research and Development, ExxonMobil

Agustín Delgado
Chief Innovation and Sustainability Officer, Iberdrola

Thomas Fitzgerald
Senior Analyst, National Grid

Claudia Schaeffer
Global Energy and Climate Change Director, The Dow Chemical Company

11:25am - 11:30am

Closing remarks

Henry Jacoby
Professor Emeritus; Former Co-Director, MIT Joint Program