



JOINT ESI-ISAS CONFERENCE TOWARDS A LOW CARBON ASIA: THE CHALLENGES OF ENSURING EFFICIENT AND SUSTAINABLE ENERGY

Orchard Ballroom 3, Level 3, Orchard Hotel
28 November 2017 | Singapore

SYNOPSIS

The world is undergoing a low-carbon energy transition. Based on the climate goals set at the 2015 Paris agreement, the carbon-dioxide (CO₂) emission intensity of the global economy would need to be reduced by 85 per cent in 35 years in order to keep global temperature to below two degrees. This works out as a need to reduce global energy CO₂ emissions by 2.6 per cent annually on average, or around 0.6 gigatonnes per year in absolute terms. This low carbon transition presents both significant opportunities and challenges to Asian economies. Besides the shift towards greater emphasis on the use of renewable energy, there is also the realisation on the need to ensure greater efficient energy use. It has been pointed out that for such a transition to be successful, there needs to be close coordination between policy, technology and capital, as well as closer international cooperation.

At this conference organised jointly by the Energy Studies Institute (ESI) and the Institute of South Asian Studies (ISAS), from the National University of Singapore, the speakers will share their thoughts on the challenges and opportunities Asia faces in its low-carbon energy transition efforts. We are honoured to have Dr Vikram Singh Mehta, Executive Chairman, Brookings India; and Senior Fellow, Brookings Institution, United States, delivering the keynote address for this conference. Given that we are reaching the end of 2017, they will also share their assessment on key issues affecting energy developments this year as well as provide a brief assessment on the outlook for 2018.

PROGRAMME

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| 8.15am | Registration |
| 9.00am | Welcome Remarks
Professor Ang Beng Wah
Executive Director
Energy Studies Institute, NUS |
| 9.10am | Keynote Address
Dr Vikram Singh Mehta
Executive Chairman, Brookings India; and
Senior Fellow, Brookings Institution, United States |
| 9.40am | Dialogue Session with Mr Vikram Singh Mehta
<u>Chairperson</u>
Ambassador Gopinath Pillai
Chairman, Institute of South Asian Studies, NUS; and
Ambassador-at-Large, Ministry of Foreign Affairs, Singapore |

10.10am Coffee/Tea Break

10.30am **Panel Discussion**
Chairperson
Dr Amitendu Palit
Senior Research Fellow and
Research Lead (Trade & Economic Policy)
Institute of South Asian Studies, NUS

10.35am Panellists
Mr Ng Wai Choong
Chief Executive
Energy Market Authority, Singapore

Dr S Narayan
Visiting Senior Research Fellow
Institute of South Asian Studies, NUS; and
Former Economic Adviser to the Prime Minister of India

Mr Henning Gloystein
Energy Editor, Asia
Thomson Reuters

Dr Anthony D Owen
Principal Fellow and Head of Energy Economics Division
Energy Studies Institute, NUS

11.55am **Question and Answer Session**

12.30pm **Vote of Thanks**
Dr Christopher Len
Senior Research Fellow
Energy Studies Institute, NUS

12.45pm **Lunch Reception**

2.00pm End of Conference

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JOINT ESI-ISAS CONFERENCE TOWARDS A LOW CARBON ASIA: THE CHALLENGES OF ENSURING EFFICIENT AND SUSTAINABLE ENERGY

Biography (In Order of Appearance)

Professor Ang Beng Wah

Executive Director
Energy Studies Institute, NUS



Professor Ang Beng Wah is the Executive Director of the Energy Studies Institute. He is also Professor of Industrial Systems Engineering and Management at the National University of Singapore. His primary research interests are systems modelling and analysis, and energy economics and policy. He has been very active in energy demand analysis, and has made important contributions to the development of the technique of Index Decomposition Analysis. The decomposition technique he proposed has been widely used by researchers and national and international energy organisations to study factors affecting national energy consumption and carbon emissions, as well as to monitor sectoral and economy-wide energy efficiency trends. Professor Ang is a Co-Editor of *Energy Economics*, and a member of the editorial boards of several other international energy journals including *Energy Policy* and *Energy*.

Dr Vikram Singh Mehta

Executive Chairman, Brookings India; and
Senior Fellow, Brookings Institution, United States

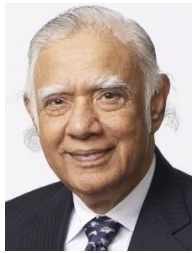


Mr Vikram Singh Mehta started his career with the Indian Administrative Service (IAS) in 1978. He resigned in 1980 to join Phillips Petroleum in London as their senior economist. In 1984 he returned to India to join the government company Oil India Ltd as its advisor, strategic planning. He joined Shell International in London in 1988. He was appointed managing director of Shell Markets and Shell Chemical Companies in Egypt in 1991 and Chairman of the Shell Group of Companies in India in 1994. He left Shell in October 2012. Vikram is currently Executive Chairman of the think tank Brookings India and senior fellow of Brookings Institution. He was chairman of the Hydrocarbon Committee of the Confederation of Indian Industry (CII) and a member of its National Council. He is an independent director of several companies including Larsen and Toubro Ltd, (the leading engineering and construction conglomerate in India), Mahindra and Mahindra Ltd (inter Alia the largest tractor and SUV manufacturer in the country), Vodafone India Ltd and Colgate Palmolive India Ltd. He was recipient of Asia House's "Businessmen of the year" award for 2010 and also the Asia Centre for corporate governance and sustainability's Award for "Best Independent Director" for 2016. He is a member of the Board of Overseers of the Fletcher School of Law and Diplomacy, Tufts University; and the Board of Governors of the Pandit Deen Dayal University of Petroleum. He was formerly Chairman of the Board of Trustees of the Duke of Edinburgh's award for India and a member of the Board of Governors of Doon School.

Dr Mehta has a regular column in the leading National Newspapers "Indian Express" and "Financial Express" and is the author of a large number of published papers in journals etc. Dr Mehta holds a BA mathematics honours degree from St Stephens College, Delhi University, a BA/MA economics honours degree from Magdalen College, Oxford University and a post graduate degree in energy economics from the Fletcher School of Law and Diplomacy, Tufts University.

Ambassador Gopinath Pillai

Chairman, Institute of South Asian Studies, NUS; and
Ambassador-at-Large, Ministry of Foreign Affairs, Singapore



Ambassador Gopinath Pillai has had a varied career as an entrepreneur and diplomat. He is the founding Chairman of the Management Board of the Institute of South Asian Studies, Ambassador-at-Large in the Ministry of Foreign Affairs since August 2008, and Singapore's Special Envoy to Andhra Pradesh. He served as Singapore's longest serving Non-Resident Ambassador to Iran between 1989 and 2008, and as Singapore's High Commissioner to Pakistan between 1994 and 2001. He is also Chairman of the Indian Heritage Centre Advisory Board. Ambassador Pillai's business interests include education, logistics, and information technology. He is Chairman of Malvern International Plc, listed on AIM in London, United Kingdom.

For Ambassador Pillai's manifold contributions to public service, the Singapore government awarded him the Public Service Star Award (BBM) in 1999, BBM (BAR) in 2009 and the Meritorious Service Medal in 2015. For his efforts in bridging and advancing Singapore-India relations, the Indian government conferred him the Padma Shri Award at the 2012 Republic Day. The National University of Singapore (NUS) bestowed on him the Outstanding Service Award in 2015. In 2016, the NUS Faculty of Arts & Social Sciences bestowed on him the Distinguished Arts and Social Sciences Alumni Award.

Dr Amitendu Palit

Senior Research Fellow and Research Lead (Trade & Economics)
Institute of South Asian Studies, NUS



Dr Amitendu Palit is Senior Research Fellow and Research Lead (Trade and Economic Policy) at the Institute of South Asian Studies (ISAS) in the National University of Singapore (NUS). He is an economist specialising in international trade policies, regional economic developments, comparative economic studies and political economy of public policies. He worked with the Government of India for several years with his longest span being in the Department of Economic Affairs in the Ministry of Finance, India. Prior to joining ISAS in April 2008, he was with the Indian Council for Research on International Economic Relations (ICRIER), a leading economic policy research institute and think-tank in Delhi. His current research focuses on economic and political implications of India's integration with the Asia-Pacific region, impact of mega-regional trade agreements, and various determinants of external trade and integration policies of China and India.

His books include *The Trans Pacific Partnership, China and India: Economic and Political Implications* (2014; Routledge UK), *China India Economics: Challenges, Competition and Collaboration* (2011; Routledge) and *Special Economic Zones in India: Myths and Realities* (2008; Anthem Press; Co-authored). He has also edited several books and published in peer-reviewed academic journals. He is a columnist for India's well known financial daily, *Financial Express* and a regular contributor for the *China Daily*. He appears regularly as an expert on the BBC, Bloomberg, Channel News Asia, CNBC, Australian Broadcasting Corporation (ABC), Doordarshan (India) and All-India Radio.

Mr Ng Wai Choong

Chief Executive

Energy Market Authority, Singapore



Mr Ng Wai Choong has been the Chief Executive of Energy Market Authority since April 2015. He joined the Singapore Administrative Service in 1991 after graduating from the University of Tokyo, Japan in 1990. He also attended the Harvard Business School's Program for Management Development in 2001, and the INSEAD Advanced Management Program in 2012. He was the Deputy Secretary (Policy) in the Ministry of Finance from 2007 to March 2015 overseeing government revenue, expenditure and investment policies. Before that, he was the Deputy Secretary (Industry) in the Ministry of Trade and Industry (MTI) from 2003 to 2007, and was concurrently the first Chief Executive of the Competition Commission of Singapore (CCS) from 2005 to 2006. He was conferred the Public Administration Medal (Silver) in 2006 and the Long Service Medal in 2014. He is married with a son.

Dr S Narayan

Visiting Senior Research Fellow

Institute of South Asian Studies, NUS; and

Former Economic Advisor to the Prime Minister of India



Dr S Narayan (IAS, 1965 batch), with nearly four decades (1965 to 2004) in Public Service in the State and Central Governments, in Development Administration, was the Economic Adviser to the Prime Minister during 2003-04. Prior to this assignment, Dr Narayan served the Government of India as Finance and Economic Affairs Secretary, Secretary in the Departments of Revenue, Petroleum and Industrial Development. As Secretary, Petroleum and Natural Gas, he was responsible for policy formulation and implementation in the hydrocarbon sector. Between 2000 and 2003, in the Ministry of Finance, his responsibilities included formulation of macroeconomic policy for the Government, tariff and taxation policies as well as initiatives for modernising the capital markets. His special interests include public finance, energy policy, governance issues and international trade. Dr Narayan obtained his PhD from the Indian Institute of Technology in New Delhi. He has an MPhil (Development Economics) from Cambridge University and Master of Business Management (Finance) from the University of Adelaide. He graduated with an MSc (Physics) from the University of Madras (Madras Christian College). Dr Narayan has single authored one book, edited two books and written numerous policy papers, reports and book chapters. He also writes regularly in newspapers, both locally and internationally on issues relating to Public Policy, Governance, Public Finance, Trade and Energy.

Dr Narayan has been a Visiting Senior Research Fellow at the Institute of South Asian Studies (ISAS), National University of Singapore since 2005. After nine successful years as Head of Research at ISAS, Dr Narayan handed over the portfolio in mid 2014. He is a chair professor at the India Gandhi Open National University, New Delhi. The Center for Asia Studies a think tank based in Chennai, and Athena Infonomics Ltd, a Chennai-based research and consulting firm, are his other initiatives.

Mr Henning Gloystein

Energy Editor, Asia
Thomson Reuters



Mr Henning Gloystein has been Asia Energy Editor for Reuters News in Singapore since October 2014. He is also Deputy Editor in Charge for Asia Commodities. Between 2010 and 2014, he was Senior Energy Correspondent in London, leading European power, natural gas and coal news. Prior to joining Reuters, he was Team Leader for European Power Markets at Platts in London. Before starting to cover energy news, Henning was news correspondent and photographer working for German and Latin American newspapers with assignments in Colombia, Timor Leste, Africa and the Middle East. Henning holds a joint Master's degree in History, Politics and the History of Science from Humboldt and Technical Universities in Berlin, Germany.

Professor Anthony D Owen

Principal Fellow and Head of Energy Economics Division, Energy Studies Institute, NUS; and Emeritus Professor of UCL School of Energy and Resources, Adelaide, Australia



Before joining the Energy Studies Institute, Tony was a Professor at the UCL School of Energy and Resources, Adelaide, Australia, where he held the Santos Chair in Energy Resources. Prior to that, he was Professor of Energy Economics in the Curtin Business School, Curtin University of Technology, Perth, and before that Associate Professor of Economics and Joint Director of the Centre for Energy and Environmental Markets at the University of New South Wales, Sydney. He has a PhD in Econometrics from the University of Kent (UK) and has held visiting appointments at the Universities of British Columbia, Colorado, Leeds, and Exeter, the Organisation for Economic Cooperation and Development (Paris), the UK Department of Energy (Harwell), and the International Energy Agency (Paris). Energy related consulting activities have been undertaken in Australia, China, Denmark, Indonesia, Norway, the Philippines and the UK. Tony is an Emeritus Professor at UCL, a Fellow of the Royal Statistical Society, and Past President (2004) of the International Association for Energy Economics.

Dr Christopher Len

Senior Research Fellow
Energy Studies Institute, NUS



Dr Christopher Len is a Senior Research Fellow at the Energy Studies Institute (ESI) of the National University of Singapore. He was previously a Research Fellow at the Stockholm-based Institute for Security and Development Policy where he was responsible for the Energy and Security in Asia Project. Dr Len was also a Visiting Associate under the Energy Programme of the Institute of Southeast Asian Studies in Singapore between 2006 and 2012. Christopher is in charge of the Maritime Energy Futures Programme at ESI. His research focuses on Asian energy and maritime security issues, regional infrastructure connectivity, the growing political and economic linkages between the various Asian sub-regions, as well as sustainable energy access in the Arctic. He obtained his PhD from the Centre for Energy, Petroleum and Mineral Law and Policy at the University of Dundee in Scotland. He also has degrees from the University of Edinburgh, Scotland and Uppsala University, Sweden.

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