



# **Dynamics of Natural Gas Markets in East Asia:**

## The Momentum on Pricing Transition

# Carlton Hotel, Singapore

### 76 Bras Basah Road

### Singapore 189558

### Tuesday, August 30, 2016

### 1:00 pm to 5:00 pm

Conference Fee: SGD 90.00 (inclusive of GST). Seats are limited, please register early.

Please click <u>here</u> for the registration form and email the completed form to Ms Jan Lui at <u>jan.lui@nus.edu.sg</u> or contact her for more details at +65 65192000.

Despite the continued dominance of oil-indexed prices and long term contracts, trends in the LNG industry have been changing in the past few decades. The expansion of US LNG exports will see North America becoming the second largest LNG exporter by 2025, while Australia is poised to become the largest LNG exporter by the end of the decade. Contract structures for buyers are becoming more flexible, thus pushing forth increasing volumes in shorter term trades. More broadly, the centre of gravity of global natural gas market is shifting eastwards, to Asia and Asia Pacific. This is in line with the economic growth and increasing energy demand from the emerging large economies in the region like China, India and ASEAN member countries.

The emergence of new supply in a slow growth market had driven Asian spot prices to historical low levels recently. This, together with persistence of low oil prices, new supply of piped gas and slower demand growth in China and overall uncertain growth prospects in Asia, paints a challenging picture for the suppliers, while giving more options for the consumers.

The East Asian region has been working to change the gas pricing mechanisms from the rigid long term oil indexation to more flexible hub indexation. Development of regional gas benchmarks through gas hubs is also pursued by many countries such as China, Japan and Singapore. As a part of the hub initiative, the region has called for the creation of a liquid regional LNG market by removing destination restrictions. Domestically, China and Japan are in the process of liberalizing their gas and electricity markets.

Many interesting questions are being raised from the current market dynamics. So what do these dynamics mean for global gas markets? What does more flexible contracts mean for both exporters and importers? How to establish the Asian benchmark prices? What have been planned in the region, in terms of LNG spot market, market liberalization and gas trading hubs? Where an Asian LNG market is feasible?

### **CONFERENCE PROGRAMME**

13:00 - 13:20	Registration
13:20 - 13:25	Welcome Speech by Professor Siaw Kiang Chou, Executive Director, ESI,
13:25 - 13:45	Keynote Speech by Professor Jonathan Stern, Chairman of Oxford Gas Research Program
13:45 - 15:00	<ul> <li>Panel 1: What if? What lies ahead for the business sector?</li> <li>What are business' views on the LNG market dynamics in East Asia?</li> <li>How should businesses prepare to deal with these dynamics?</li> <li>What is needed for market acceptance of a gas benchmark?</li> </ul> Panelists: Mr. Vivek Chandra, CEO, Texas LNG Ms. Jane Liao, Deputy CEO, CPC Dr. Andrew Seck, Regional Head of LNG Asia, Uniper Dr. Kang Wu, Vice Chairman, Asia and Managing Director, FGE China Moderator: Mr. Henning Gloystein, Asia Energy Editor, Reuters
15:00 - 15:15	Networking Tea break
15:15 - 16:30	<ul> <li>Panel 2: What next? Policy developments towards competitive East</li> <li>Asian gas markets <ul> <li>What should be done to create Asian gas/LNG benchmark prices?</li> <li>What could and should the government do?</li> </ul> </li> <li>Panelists:</li> </ul>
	Ms. Anne-Sophie Corbeau, Research Fellow II, KAPSARC Dr. Ken Koyama, Managing Director and Chief Economist, IEEJ Mr. Bradford Leach, Principal, Energy Advisory Services Dr. Dmitry Sokolov, Head of Economics and Forecasting, GECF <b>Moderator:</b> Dr. (Roc) Xunpeng Shi, Senior Fellow/Deputy Head, ESI, NUS

### Book Launch: LNG Markets in Transition: The Great Reconfiguration

We are also honored to be able to present a book launch of "<u>LNG markets in</u> <u>transition: the great reconfiguration</u>" published by the well-renowned Oxford Institute for Energy Studies.

Catch the editors of this book, Ms. Anne-Sophie Corbeau and Mr. David Ledesma, as well as Professor Jonathan Stern, at our event for an exclusive sneak preview of the book.



### Mr. Vivek CHANDRA

Mr. Vivek Chandra is the CEO of Texas LNG LLC, a company developing a 1.5-2 MTA LNG export project in South Texas, USA, and a partner in Petroleum Resolution Envoys, providing dispute resolution services. He is also the Principal of Kerogen Consultants, a boutique gas and energy advisory firm based in Melbourne, Australia.

His extensive international gas experience includes roles as senior executive with a mid-sized gas-focused E&P company in Australia, founding a sovereign energy investment company in the Middle East, marketing gas produced & transported via an international gas pipeline company in the UAE, and promoting an LNG export project in Alaska. He has also served in a variety of technical, financial and commercial roles with ARCO International Oil and Gas Company and Schlumberger Overseas, both in North America and SE Asia.

### Ms. Anne-Sophie CORBEAU

Ms. Anne-Sophie Corbeau is a Research Fellow specializing in global gas markets. Before joining KAPSARC, she worked for the International Energy Agency and IHS CERA. Ms. Corbeau joined the International Energy Agency in March 2009 as Senior Gas Expert at the Gas, Coal, and Power Division (Office of Energy Markets and Security). She is responsible for managing the research on global gas markets, with a particular focus on short- to medium term development. She is the main author of the publication: 'Medium Term Gas Market Report'.

Prior to this assignment, Ms. Corbeau worked at CERA (Cambridge Energy Research Associates) as Associate Director of the European Gas team. As a specialist in European gas market fundamentals and demand forecasting, she was responsible for updating the short- and long-term market outlooks for natural gas supply and demand, and prices in Europe. Prior to joining CERA, she worked in the fuel cell area.

She holds an MSc in Energy Engineering from the Ecole Centrale Paris and an MSc in Energy Engineering and Economics from the University of Stuttgart.

#### Mr. Henning GLOYSTEIN

Mr. Henning Gloystein is the Energy Editor, Asia at Thomson Reuters. Previously, Mr Gloystein held the role of Senior Energy Correspondent, Head of European Power, Gas & Coal and European Power, Gas & Coal Community Editor.

Before joining Thomson Reuters, he was Deputy Director for Markets and Strategy at the London-based environmental market consultancy IDEAcarbon, and Team Leader for European Power Markets at Platts. Before moving to London in 2007, Mr Gloystein worked as a freelance reporter and photographer for German and Latin American broadsheets and magazines, with assignments in Colombia, East Timor and Turkey. Mr Gloystein has a Master's degree in History and Politics from Humboldt University in Berlin.

### Dr. Ken KOYAMA

Dr. Ken Koyama is Chief Economist and Managing Director at the Institute of Energy Economics, Japan (IEEJ). He also takes a position of Visiting Professor at Graduate School of Public Policy at the University of Tokyo. He was awarded the degree of: (1) B.A. in Economics in 1982 from Waseda University, Tokyo, Japan; (2) M.A. in Economics in 1986 from Waseda University, Tokyo, Japan; and (3) PhD in 2001 from University of Dundee, Dundee, Scotland.

His specialized field of research is: energy security issues and geopolitics of energy; and analysis for global energy market and policy issues with emphasis on the Asia-Pacific region. He has served as a member of energy policy related advisory councils and committees of Japanese government in many occasion. He also plays a role as: a member of International Advisory Board, Energy Academy Europe (Netherland) and International Advisor (Chair in Energy Economics) at Energy Commission of Tenaga National University (Malaysia). He was awarded the BrandLaureate's "Brand Personality Award 2016".

#### Mr. Bradford LEACH

Mr. Bradford Leach is a Principal with Energy Advisory Services (EAS) which provides consulting related to physical/financial energy hub development, liquidity/pricing analysis, futures market regulation, risk management operations, and energy futures market education. Current EAS projects include risk management research related to the Marcellus/Utica shale production, energy price reporting agency analysis, an ongoing assessment of natural gas and electricity derivatives market liquidity, and the evaluation of pricing and the development of market centers related to the Asian LNG/natural gas market.

Prior to EAS, Mr. Leach was Executive Director of Energy Research and Development at CME Group. At NYMEX, prior to the 2008 acquisition by CME Group, he was a VP in the NYMEX Research Department. In these positions, he supervised the development of futures and options contracts related to natural gas, electricity, coal, uranium, and environmental emissions. He was responsible for all aspects of research related to the NYMEX Henry Hub Natural Gas Futures Contract, one of the most successful physically-delivered energy commodity contracts ever launched by a U.S. exchange. He managed relationships with key energy infrastructure entities such as Sabine Pipe Line, operator of the Henry Hub. He supervised the analysis of delivery facilities related to financial metrics, volumes, and midstream competitive circumstances. He is widely recognized industry expert in energy market research, energy hub design, and analysis and development of competitive responses to evolving commercial markets.

#### Ms. Jane LIAO

With Chemical Engineering as the major in university, Ms. Jane Liao continued her education and received MSc degree from National Tsing-hua University, Taiwan followed by another Master degree in Laws from CEPMLP, University of Dundee, UK.

Ms. Liao started her career as a chemist at Exploration & Development Research Institute of CPC. In 1997, she was transferred to Supply Division in charge of LNG /LPG Purchase and Gas Sale Contracts. Since March 2015, she has become the Deputy CEO of Natural Gas Business of CPC Corporation, Taiwan.

### Dr. Andrew Benjamin SECK

Dr. Andrew Seck holds a PhD from the Centre for Energy, Petroleum & Mineral Law and Policy, University of Dundee, Scotland and a BSc in Geological Engineering from Queen's University, Canada.

Dr. Seck has 25 years' experience working in the international oil and gas industry and began his career as a wireline engineer working for Schlumberger. Following his doctoral studies, he spent eight years in Russia with Shell, including an assignment with Sakhalin Energy Investment Company where he marketed the first sales of Russian LNG into Asia/Pacific.

Following a corporate planning assignment with Shell in Houston, he joined Qatargas Operating Company Ltd. as a direct hire where he worked for almost six years as Assistant Director – LNG Marketing – East of Suez with the responsibility for maintaining and growing Qatargas' LNG sales portfolio throughout Asia/Pacific.

At the beginning of 2015, he joined E.ON Global Commodities SE as their Regional Head of LNG, Asia based in Singapore.

### Dr. Xunpeng SHI

Dr. Xunpeng Shi is a Senior Research Fellow and the Deputy Head of Energy Economics Division at the Energy Studies Institute, National University of Singapore. Dr. Shi also holds the position of President at the Association of the Chinese Economics Society, Australia (CESA). He is an Associate Editor of Journal of Management for Modelling. Previously, he was the Chief Researcher for EE&C at the Brunei National Energy Research Institute. Until 2013, he was an energy economist in the Economic Research Institute for ASEAN and East Asia (ERIA).

Prior to starting his PhD studies in 2006, Dr. Shi held various management and professional positions in China's leading energy institutes and central government agencies. His areas of expertise include natural gas pricing, energy market integration and connectivity, renewable energy, energy efficiency with a regional focus of ASEAN, and Northeast Asia, and the Chinese economy. He is active in the East Asia's energy community, and a frequently speaker on China, ASEAN and East Asia energy issues.

#### Mr. Dmitry SOKOLOV

Mr. Dmitry Sokolov is currently heading the Energy Economics and Forecasting Department at the Gas Exporting Countries Forum (GECF). At the GECF, Mr. Sokolov is responsible for developing views on the gas market development by projecting supply and demand figures into the future to obtain better understanding of the mid- and long-term gas sector trends and providing quantitative assessment of the impact of policies, regulations, investments and commercial decisions, thorough analysis and utilization of specialized energy and gas forecasting models.

More specifically, Mr. Sokolov is responsible for supervising long-term gas market Outlook development process based on various scenario assumptions, GECF Global Gas Model (GGM) runs and regular updates of the data and constraints of GGM, as well as development of econometrical long and medium term forecasting sub-model related to macroeconomics and energy sector to complement GECF GGM.

### Professor Jonathan STERN

Professor Jonathan Stern founded the OIES Natural Gas Research Programme in 2003 and was its Director until October 2011 when he became its Chairman and a Senior Research Fellow. He is Honorary Professor at the Centre for Energy, Petroleum & Mineral Law & Policy, University of Dundee; Visiting Professor at Imperial College's Centre for Environmental Policy in London; Fellow of the Energy Delta Institute at Groningen in the Netherlands; and Distinguished Research Fellow of the Institute of Energy Economics, Japan (in Tokyo).

He is the author of several books and many shorter works on energy and natural gas issues including: The Pricing of Internationally Traded Gas (OUP: 2012); and (co-authored with Howard Rogers): Challenges to JCC pricing in Asian LNG Markets; The Dynamics of a Liberalised European Gas Market: determinants of hub prices and roles and risks of major players. He is the author of two chapters of the Programme's new book on LNG, LNG Markets in Transition: the great reconfiguration, eds. Anne-Sophie Corbeau and David Ledesma, to be published by Oxford University Press in September 2016. His current research is on the future of gas in a decarbonising European energy system.

### <u>Dr. Kang WU</u>

Dr. Kang Wu has over 20 years of energy research and consulting experience and has been with FGE since the early 1990s. He conducts studies of energy policies, security, demand, supply, and trade focusing on oil, gas, and market developments in the Asia-Pacific region.

He has responsibilities over FGE's Asia operations in general and supervises the company's China energy (oil and gas) practices in particular. His China work covers a variety of issues related to China's economic, energy (with a special emphasis on oil and gas), and environmental developments.

In 2013, he was appointed as an honorable advisor to a prestigious petroleum research institute in China. He holds Ph.D. and M.A. degrees in economics from University of Hawaii at Manoa and a B.A. in international economics from Peking University. Dr. Wu was a Visiting Fellow (1991-1993), Fellow (1993-2010), and Senior Fellow (2010-2013) at the East-West Center in Honolulu, Hawaii.

He was made Executive Director for Asia Operations in early 2013.