



1-3 November 2017 Shangri-La Hotel Bangkok, the Kingdom of Thailand

# THEME

# **GLOBAL ENERGY MARKETS IN TRANSITION:**

# FROM VISION TO ACTION

## Draft annotated agenda as of 4 October 2017

The 7th Asian Ministerial Energy Roundtable (AMER7), hosted by the Kingdom of Thailand and co-hosted by the United Arab Emirates gathers Energy Ministers and Heads of International Organisations on 1-3 November 2017 to focus on global energy markets in transition.

AMER7 stands to make an important contribution to move from vision to action and identify secure, affordable and equitable energy transition pathways in Asia. While levels of social and economic development, and natural resource endowment profiles vary widely from advanced economies and regions in North East Asia to rapidly developing economies in South East Asia and the vast expanse of Central Asia, the geoeconomic weight of Asia as a whole shall set the pace of global energy market transition.

In this milestone meeting Ministers will meet to discuss **the energy security implications of potential energy transition pathways** that must:

- accomodate the global consensus on a lower carbon future reached in Paris,
- maintain market stability accounting for the diversity of resource endowment profiles across Asia, and
- serve practical socio-economic goals that vary sharply across the affluent and less-developed economies of the region.

Discussions will focus on mitigating uncertainty that hampers effective decision-making and timely investment by strengthening stakeholder cooperation through ongoing dialogue facilitated on the open and neutral platform of the International Energy Forum (IEF) in close association with other multilateral organisations.

### GLOBAL ENERGY MARKETS IN TRANSITION: FROM VISION TO ACTION

In previous IEF and AMER meetings, Energy Ministers have recognised their growing interdependence and expressed understanding of the important role of dialogue in establishing the trust necessary to forge and sustain enduring partnerships to underpin our global energy future. In AMER7 Ministers will not only consider the benefits of embracing energy efficiency measures along the entire energy value chain, but also discuss the practical implications that energy transition pathways may have for a healthy and stable development of oil and gas markets. Enhanced policy dialogue and cooperation, knowledge-sharing, data transparency, trade and investment facilitation, as well as measures to ease the roll-out of new technologies will feature prominently in discussions on how transient and structural changes affect energy market security, including market interactions between distinct energy technologies and transition policies.

The 6th Asian Ministerial Energy Roundtable held under the theme "The New Energy Landscape: What Role for Asia?" (Doha, November 2015) culminated in the endorsement of a proposal by the Kingdom of Saudi Arabia to establish an Asian Energy Efficiency Knowledge Sharing Framework under the IEF that has since been adopted by the 2<sup>nd</sup> G20 Energy Ministers Meeting (Beijing, June 2016) and the IEF15 Ministerial (Algiers, September 2016).

The subsequent embrace of such a Knowledge Sharing Framework or Hub by the G20, and convening of the 1st Asia Energy Efficiency Conference and Expo, to be hosted by the Kingdom of Saudi Arabia, and co-hosted by Japan, facilaitates Ministers' consideration of next steps to enhance efficiency and sustainability of natural resource use across the entire life cycle, economic sectors, and among the range of available energy technologies.

Two years after the adoption of the United Nations Sustainable Development Agenda (UNSDA2030), the Paris Agreement (UNFCCC, 2015) and in view of the outcomes of:

- The IEF15 Ministerial that called for an enhanced role for the dialogue to strengthen global energy security and facilitate an orderly global energy transition;
- The 5th IEF-IGU Ministerial Gas Forum (New Delhi 2016) that noted that gas is a driving force to help achieve an orderly energy transition, and is projected to make the largest contribution to societies across the world, when compared to other energy technologies;
- The G20 Leaders' Meeting (Hamburg, July 2017) that regards energy security as one of the guiding principles for energy transition, and aims to improve the efficiency and sustainability of natural resource use to promote sustainable consumption and production patterns in support of the UNSDA 2030;

the value of ministerial dialogue to take stock of energy market and policy evolutions among energy producer and consumer countries has never been greater.

### GLOBAL ENERGY MARKETS IN TRANSITION: FROM VISION TO ACTION

Energy markets and longer-term policy and technology options are subject to growing turbulence and uncertainty. This is, in part, a consequence of a richly diverse range of opinion as to the optimal pace and orientation of change, and differentiation in the strength of policy commitments and potential impacts among Asia's varied but increasingly interdependent economies.

Ministers at AMER7 are expected to review potential energy security implications of various transition pathways that in the short to mid-term will remain reliant on the ready availability of sustainable supplies of affordable hydrocarbons. The extent to which clean energy technology, and enhanced energy market data transparency will affect policy choices will therefore be closely examined.

The outcomes of AMER7 will further inform other upcoming energy dialogue meetings such as the IEF16 hosted by the government of India and co-hosted by China and Korea on 10-12 April 2018 in New Delhi, India.

## **Session Structure**

The programme of AMER7 is structured around three key sessions that aim to focus on today's most pertinent questions for energy security:

- What potential impacts may step-changes in technology and shifts in transition policy have on upstream investment in the short and longer-term; not only for unconventional and conventional resources, but also for oil market stability more broadly?
- To what extent can gas suppliers rely on policy and market levers to facilitate the role of gas as the fuel of choice in support of emerging clean energy technologies that in conjunction with other technologies, are expected to underpin sustainable growth and development in Asia and other regions?
- How can long-term policy and technology cooperation help foster efficiency and productivity improvements to natural resource management and use, and shape supply chains that are fit the future?

Plenary Sessions will be preceded by welcoming and opening statements and will be followed by a concluding session to anchor dialogue outcomes reflected in a concluding statement.

## Session 1: Oil markets: Investment and security challenges in a world in transition

- Session 2: Natural Gas: Market and policy hurdles to the golden age of gas
- Session 3: Disruptive Technologies and Energy Future: Impacts, Challenges and Preparation

## AGENDA WITH TIMING, PANELISTS AND SPEAKERS

# 7<sup>th</sup> Asian Ministerial Energy Roundtable

# **Global Energy Markets in Transition: From Vision to Action**

## Bangkok, The Kingdom of Thailand

1-3 November 2017

## Shangri-La Hotel

# PRE-OPENING DAY, WEDNESDAY 1 NOVEMBER 2017

14:00-20:00	REGISTRATION Registration Desk, Pre-Registration required (online and/or via host and IEF)
Venue 19:00-21:00	Ballroom 2-3 WELCOMING RECEPTION/SEATED DINNER AND NETWORKING
19:40-20:00	<ul> <li>Welcoming remarks</li> <li>HE General Anantaporn Kanjanarat, Minister of Energy, Thailand</li> <li>HE Suhail Mohamed Al Mazrouei, Minister of Energy and Industry, United Arab Emirates</li> <li>HE Shri Dharmendra Pradhan, Minister of Petroleum and Natural Gas, India</li> <li>HE Sun Xiansheng, Secretary General, International Energy Forum</li> </ul>

## AGENDA WITH TIMING, PANELISTS AND SPEAKERS

# DAY 2, THURSDAY 2 NOVEMBER 2017

7:30-8:30	REGISTRATION	
	Registration Desk, Pre-Registration required (online and/or via host and IEF)	
	Open to all delegates, guests, and the press	
Venue	Ballroom 2-3	
8:30-9:35	INAUGURATION SESSION:	
8:30-8:35	Opening Video and Master of Ceremonies announcements	
	Welcoming and opening statement	
8:35-8:45	HE Air Chief Marshal Prajin Juntong, Deputy Prime Minister, Thailand	
8:45-9:00	Thai Deputy Prime Minister and Heads of Delegation Photo followed by courtesy greetings	
Venue	Ballroom 1	
Venue 9:00-9:05	Ballroom 1 Photo opportunity for press photos and videographers as Ministers are seated	
9:00-9:05	Photo opportunity for press photos and videographers as Ministers are seated	
9:00-9:05	<ul> <li>Photo opportunity for press photos and videographers as Ministers are seated</li> <li>Introductions and scene setting remarks (5 minutes speaking time)</li> <li>HE General Anantaporn Kanjanarat, Minister of Energy, Thailand</li> <li>HE Khalid Al-Falih, Minister of Energy, Industry, and Mineral Resources of Saudi Arabia and President of the OPEC Conference</li> </ul>	
9:00-9:05 9:05-9:20	<ul> <li>Photo opportunity for press photos and videographers as Ministers are seated</li> <li>Introductions and scene setting remarks (5 minutes speaking time)</li> <li>HE General Anantaporn Kanjanarat, Minister of Energy, Thailand</li> <li>HE Khalid Al-Falih, Minister of Energy, Industry, and Mineral Resources of Saudi Arabia and President of the OPEC Conference</li> <li>HE Sun Xiansheng, Secretary General, International Energy Forum</li> </ul>	

DAY 2, THURSDAY 2 NOVEMBER 2017		
	Closed Sessions (Ministers and official delegations only)	
Venue	Ballroom 1	
9:35-11:00	PLENARY SESSION 1: Oil markets: Investment and security challenges in a world in transition	
	Chair's opening and scene setting remarks	
	HE Sun Xiansheng, Secretary General, International Energy Forum	
9:35-10:15	Ministerial Panel (7 minutes speaking time)	
	<ul> <li>HE Shaikh Mohammed bin Khalifa bin Ahmed Al-Khalifa, Minister of Oil, Bahrain</li> <li>HE Tawfiq-e-Elahi Chowdhury, Bir Bikram, Minister to Hon'ble Prime Minister for Power, Energy and Mineral Resources Affairs, Bangladesh</li> <li>HE Issam A. Almarzooq, Minister of Oil and Minister of Electricity &amp; Water, Kuwait</li> <li>Mr Keisuke Sadamori, Director, Energy Markets and Security, International Energy Agency (IEA)</li> <li>Dr Ivan Marten, Senior Partner and Managing Director, Vice Chairman Energy Practice, Boston Consulting Group (BCG)</li> </ul>	
10:15-10:25	Interactive Survey Questions moderated by Master of Ceremonies	
10:25-11:00	Roundtable Discussion	
	AMER7 Heads of Delegation	
11:00-11:30	Coffee break, bilateral meetings, and networking	

DAY 2, THURSDAY 2 NOVEMBER 2017					
Venue	Ballroom 1				
11:30-13:00	PLENARY SESSION 2: Natural Gas: Overcoming market and policy hurdles to the golden age of gas				
	Chair's opening and scene setting remarks				
	• HE Seyed Mohammad Hossein Adeli, Secretary General, Gas Exporting Countries Forum				
11:35-12:05	Ministerial Panel (7 minutes speaking time)				
	<ul> <li>HE Shri Dharmendra Pradhan, Minister of Petroleum and Natural Gas, India</li> <li>HE Mohammad Bin Saleh Al-Sada, Minister of Energy and Industry, Qatar</li> <li>HE Mohammad Yasmin Umar, Minister of Energy and Industry in the Prime Minister's Office, Brunei Darussalam</li> <li>Mr Atsushi Taketani, Commissioner for International Affairs, Agency for Natural Resources and Energy, Ministry of Economy, Trade &amp; Industry, Japan</li> <li>Prof Hidetoshi Nishimura, President, Economic Research Institute for ASEAN and East Asia (ERIA)</li> </ul>				
12:05-12:15	Interactive Survey Questions moderated by Master of Ceremonies				
12:15-13:00	Roundtable Discussion				
	AMER7 Heads of Delegation				
Venue	Ballroom 2-3				
13:00-15:00	Networking lunch and bilateral meetings				
13:30-13:40	Special Keynote address				
	<ul> <li>Khunying Thongtip Ratanarat, Member of Petroleum Institute of Thailand Foundation Board &amp; Council of Trustees, and Independent Consultant in Oil, Gas and Petrochemical Business</li> </ul>				

DAY 2, THURSDAY 2 NOVEMBER 2017				
Manua				
Venue	Ballroom 1			
15:00-16:30	PLENARY SESSION 3: Disruptive Technologies and Energy Future: Impacts, Challenges and Preparation			
	Chair's opening and scene setting remarks			
	• HE Suhail Mohamed Al Mazrouei, Minister of Energy and Industry, United Arab Emirates			
15:05-15:35	Ministerial Panel (7 minutes speaking time)			
	<ul> <li>HE General Anantaporn Kanjanarat, Minister of Energy, Thailand</li> <li>HE Han Shui, Vice Administrator, General Engineer, National Energy Administration, China</li> <li>HE Wonjoo Park, Deputy Minister for Energy &amp; Resource, Ministry of Trade, Industry and Energy, Korea</li> <li>Mr Dae Kyeong Kim, Senior Energy Specialist, Asian Development Bank (ADB)</li> <li>Mr Ian Crosby, Head of Energy Productivity Sustainable Energy For All (SEforALL)</li> </ul>			
15:36-15:50	Interactive Survey Questions moderated by Master of Ceremonies			
15:50-16:30	Roundtable Discussion			
	AMER7 Heads of Delegation			
16:30-17:00	Coffee break, bilateral meetings, and networking			

DAY 2, THURSDAY 2 NOVEMBER 2017				
Open to all delegates, guests, and the press				
Venue	Ballroom 1			
17:00-17:30	PLENARY SESSION 4 From Vision to Action: (Open to all delegates, guests, and the press)			
	Concluding statement, final remarks, and closing of the Ministerial			
	Concluding Statement delivered by AMER7 Chairman			
	HE General Anantaporn Kanjanarat, Minister of Energy, Thailand			
	Announcement of the Host and Co-Host, respectively, of the 8 <sup>th</sup> Asian Ministerial Energy Roundtable (5 minutes speaking time)			
	<ul> <li>Message from HE Suhail Mohamed Al Mazrouei, Minister of Energy and Industry of the United Arab Emirates, on behalf of the Host of the 8<sup>th</sup> Asian Ministerial Energy Roundtable</li> </ul>			
	<ul> <li>Message from HE Sun Xiansheng, IEF Secretary General, on behalf of the International Energy Forum</li> </ul>			
Venue	Ballroom 2-3			
17:30-18:00	Press conference			
Venue	Pool Side			
19:30-21:30	Reception and dinner			

### AGENDA WITH TIMING, PANELISTS AND SPEAKERS

# DAY 3, WEDNESDAY 3 NOVEMBER 2017

#### 9:00 -12:00 SITE VISIT AND CULTURAL PROGRAMME

at Rattanakosin Exhibition Hall

100 Ratcha Damnoen Klang Avenue, Bawonniwet Sub-District,

Phra Nakhon District, Bangkok 10200

http://www.nitasrattanakosin.com

Time	Program
09.00	Leave Shangri-La Hotel
09.30	Arrive at Rattanakosin Exhibition Hall
09.35-09.40	Welcome and Greeting from the Ministry of Energy's Representative and Rattanakosin Exhibition Hall
09.40-11.30	Tour of Rattanakosin Exhibition Hall
11.30	Leave Ratttanakosin Exhibition Hall
12.00	Lunch at Shangri-La Hotel

Head of Delegation Delegate
Name
Position
Country
Email:
I will attend the Rattanakosin Exhibition Hall
I will not attend the Rattanakosin Exhibition Hall

## AGENDA WITH TIMING, PANELISTS AND SPEAKERS

Please reply early at <u>lina.murad@ief.org</u>; <u>yongyooth.h@gmail.com</u>; <u>looktan.uparawat@gmail.com</u>;, <u>ve\_tis@hotmail.com</u>

## PLENARY SESSION INTRODUCTIONS

## **Plenary Session 1**

## Oil markets: Investment and security challenges in a world in transition

In the short to medium term competition for market share among major producers looks set to intensify as projects sanctioned earlier enter operation and incremental volumes enter already well-supplied markets. The trend towards more assertive deployment of new technologies, especially in the transport sector, a traditional bastion of oil demand, adds a further element of uncertainty that favours the argument that oil may well remain low for longer: Investor stamina may not hold as consequence.

Looking to the longer-term, the impact of weak oil market fundamentals, fragile global economic growth, and the unknown implications of a global transition to a lower carbon future, defer investment in conventional oil supply. Despite the resilience of U.S. unconventional oil production, investment to compensate for decline rates in the conventional fields that have traditionally provided cover for the lion's share of global oil demand has slowed for three consecutive years. Notwithstanding the near-term glut in the oil market, all major forecasts indicate that fossil fuels are likely to dominate the mix until at least 2040, yet unconventional supply resilience, inventory build, and existing supply may well prove too narrow a backbone to shoulder demand expected to be in excess of the 100 mb/d threshold by 2020. A return to timely, adequate investment is crucial.

Weak market fundamentals combine with rising policy uncertainties stemming from the impact of energy transition. This poses a challenge to energy market security, economic growth, and recovery. Strengthening policy cooperation among Asian oil market stakeholders, including through concerted efforts to enhance oil inventory data in the Joint Organisations Data Initiative will help improve oil market data transparency, facilitate decision-making, and mitigate risk along energy transition pathways.

## Objective

Ministers and AMER7 participants are invited to discuss what the impact of technology shifts, and transition policy is on upstream investment in short and longer-term cycle projects for both unconventional and conventional resources:

• How will Ministers help maintain oil market stability in longer-term transition trajectories?

## PLENARY SESSION INTRODUCTIONS

## Plenary Session 2

## Natural Gas: Overcoming market and policy hurdles to the golden age of gas

Asia is home to the world's largest new gas consuming markets, and counts among its number the world's most rapidly growing economies that seek to embrace the "Age of Gas". Natural gas holds the promise of an orderly energy transition that strengthens energy security, stimulates economic growth, and enhances healthy energy market functioning and economic diversification in both producing and consuming economies. Despite already high growth rates, infrastructure and market hurdles remain. Poor interconnections to inland demand centres, competition from low cost and abundant coal, as well as other energy technologies such as renewables and nuclear, or growing security of supply and demand concerns stemming from rising producer and consumer co-dependencies mean that the road to the golden age of gas is less straightforward than gas' abundance indicates.

Liquified Natural Gas technologies have made global gas markets more competitive. As new supplies enter the market there is a shift in the terms of trade towards new technologies and more short-term contracts that attract new customers in a broader range of market segments. On one hand, growing gas trade volumes and opportunities for gas importing countries to lock in supplies may expose global gas markets to new risks and price fluctuations, as shifts in regional markets can propagate with greater ease across interconnected systems. On the other hand perceptions of enduring gas market supply abundance reduce investment incentives and may mute the price signals necessary to enhance gas penetration in advanced and growth economies of Asia.

As Asia weighs the costs and benefits of gas bilateral producer-consumer relations built up over the past decades have never been more critical for longer term gas market security. Enhanced policy cooperation among Asian gas market stakeholders aimed at dialogue on policy reform to overcome market and infrastructre hurdles in parallel with enhancing energy data transparency for LNG markets in the Joint Organisations Data Initiative, will be useful to monitor developments and reduce turbulence. Focus on specific issues such as regulatory and subsidy reforms, natural gas and carbon price formation, as well as risk management mechanisms will enable gas producers and consumers to capatalise on the benefits gas offers for a secure, affordable and healthy energy transition in Asia.

## Objective

Ministers and AMER7 participants are invited to discuss which policy and market levers will enable gas to shape healthy and affordable energy matrices in support of clean energy technologies to underpin sustainable growth and development in Asia:

• How will Ministers help enhance gas market penetration, and overcome market and policy hurdles to achieve healthier energy matrices in Asia?

#### PLENARY SESSION INTRODUCTIONS

### **Plenary Session 3**

### Disruptive Technologies amd Energy Future: Impacts, challenges, and preparation

Technology in the energy sector nowadays is evolving, however its transformation needs clear and predictable policy signals to accelerate and steer it. The global energy system is changing while the energy mix is being redefined. Innovative transportation technologies are gaining momentum on the demand side and are projected to increase electricity demand, as well as electric appliances, electronic devices and other goods powered by electricity for rising living standards. On supply side, in the power sector; renewables, coal and nuclear capacity additions also supply the majority of demand growth in many countries.

Disruptive energy technology can bring more benefits and facilitate transformation, but strong policy signals are needed. Many technology areas suffer from a lack of policy support, and this impedes their scaled-up deployment. Energy efficiency, bioenergy and carbon capture and storage (CCS) are notable examples, among others, of where significant potential for technology progress remains, but strong policy signals will be required to trigger the appropriate investments. On the other hand, it may be noticed that where policies have provided clear signals on the value of technology innovation, such as in solar photovoltaics (PV), onshore wind, electric vehicles (EVs), and energy storage in many countries, progress has been substantial.

Disruptive technology progress needs strong co-ordinated policy support. Energy security and sustainability benefits of disruptive technology need adequate market signals and regulations to encourage investments directed at long-term impacts. Strong and consistent policies co-ordinated across various energy sectors should account for energy policy objectives throughout the many facets of government and business decision-making, including taxation, international trade, urban planning, and innovation.

Today's critical challenge is to ensure the momentum of the new energy technology and its transformation and to speed its progress. Rapid and clear signals aligned with long-term objectives will be needed to steer the incoming disruptive technology towards sustainability. Technologies currently in the innovation pipeline need strong policy support to meet the country's long-term perspective.

Innovative/disruptive technology must be supported at all stages, from early research to full demonstration and deployment. Both incremental and radical innovations are needed to transition to a new technology solution and energy system. Governments have an important role in ensuring predictable, long-term support in all stages of innovation – i.e. from basic and applied research through to development, demonstration and deployment phases. Allocation of resources to various technologies must consider both short- and long-term opportunities and challenges for innovation, as well as reflect the level of technology maturity.

### PLENARY SESSION INTRODUCTIONS

International collaboration needs to be enhanced to achieve global objectives of innovative/disruptive technology. Joint innovation programmes can create market opportunities that benefit both manufactures and users of new technologies while contributing to the most cost-effective transformation of global energy systems.

## Objective

Ministers and AMER7 participants are invited to discuss how long-term policy and cooperation to deal with incoming innovative/disruptive technologies can render resource management and use more efficient and productive in a timely manner:

- How can Ministers set up policy to deal with energy innovation/disruption, i.e. scaled-up deployment of available technologies and further development of technologies in the innovation pipeline, as well as market responses, that can support multiple national energy policy objectives while ensuring secure, reliable and affordable energy?
- How are higher ambitions for a sustainable energy system and disruptive /innovative technology translated into action?