

IEF Discussion Paper

**The Rise of Unconventional Gas and Potential Impacts on
Gas Import and Export Strategies, with a Focus on the
Middle East and Asia Pacific**

Joint Roundtable
organised by the
International Energy Forum and the **Korea Energy Economics Institute**

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Overview

The global energy conversation has experienced a shift in focus, driven to a large extent by the effects of advances in methods of extracting and producing oil and gas. The most visible and high-impact effect of these advances is the so-called unconventional revolution, as the expansion of gas supply from shale deposits is now called.

With the advent of this incremental supply, many analysts expect to observe changes in the inter-regional structure of gas prices, the process of price formation, the direction of trade and the global energy mix. Some of these changes are already taking place, such as the increase in gas price divergence between Asia and North America (which has recently narrowed), the re-direction of Middle Eastern liquefied natural gas (LNG) cargoes originally destined for North America to Europe and Asia Pacific, and the displacement of North American coal to European markets.

Among the most talked-about topics is the prospect for Asian consumers to diversify further their sources of LNG supply, much of which comes from the Middle East, by increasing their purchases from Africa, Oceania and North America. Asian consumers see in greater LNG trade an opportunity to strengthen their energy security and to foster price convergence among Asia, Europe and North America. They also envision the possibility of restructuring the regional pricing mechanism for natural gas to rely less on oil-price indexation and to incorporate spot prices, much along the lines of North America's Henry Hub model. Consumers are exploring options for establishing similar market hubs in Asia, recognising the need for greater liquidity and the build out of related infrastructure.

Producers of natural gas recognise the arbitrage opportunities involved, as well as the contribution that diversification of natural gas supplies brings to energy security, but warn that a shift in the pricing mechanism could be disruptive and may fuel uncertainty to a degree that might discourage new investments to expand gas supply. They advise against changing a system that from their viewpoint has worked and is still needed to forge long-term investment partnerships, and emphasise that certainty about pricing mechanisms, consumption plans and policy is key to sustaining necessary investment levels

and solving coordination challenges. Without this certainty, a boom-bust cycle may follow. As the saying goes, “Nothing cures high gas prices like high gas prices”.

Viewed more broadly, the effects greater gas production and trade may have on geopolitics and the environment also merit attention. There may be a realignment of long-standing producer-consumer relations, renewed emphasis on pipeline politics and the protection of maritime trade routes, and shifts among the positions of key players in climate change negotiations, to mention a few. All of these points will affect how gas markets will ultimately evolve.

In light of the potential implications of these developments and their inherent uncertainties, participants in the 15 June 2014 joint International Energy Forum-Korea Energy Economics Institute Roundtable are invited to engage in a discussion about how and to what degree the rise of unconventional gas may be impacting the strategies of gas importers and exporters, and what implications this game changer may have for global energy security.

Selected Questions

Market Overview and Key Drivers

- How much are LNG trade volumes likely to rise over the next ten years?
 - A. <5%
 - B. 5%
 - C. 10%
 - D. 20%
 - E. >20%
- Where will most of the additional LNG supply come from?
- What percentage of proposed liquefaction capacity will become operational over the next ten years?
- Where will most of the additional LNG demand come from?
- What percentage of proposed regasification capacity will become operational over the next ten years?
- What is the most likely scenario over the next ten years for the inter-regional price structure?
 - A. Convergence
 - B. Divergence
 - C. Status quo
- What are the most important geopolitical risks to the rise of global gas trade and the orderly development of global gas markets?

Perspectives on the Rise in Unconventional Gas and Its Impact on Gas Importers' Strategies

- What is (or are) the most likely response(s) of gas importers to a rise in unconventional gas production, and why?
 - A. Renegotiate existing gas contracts (term, destination clauses, price formula)
 - B. Build sufficient infrastructure to support a hub
 - C. Create a procurement alliance
 - D. Promote greater use of gas for power and transportation
 - E. Purchase unconventional gas production and distribution assets
- Which Asian consumer(s) is (or are) likely to influence more the emergence of a new import strategy, and how?

- Are destination clauses an obstacle to consumers' energy security? Are they already a thing of the past?
- Where might we see an Asian gas trading hub, and when?

Perspectives on the Rise in Unconventional Gas and Its Impact on Gas Exporters' Strategies

- What is (or are) the most likely response(s) of current LNG gas exporters to a rise in unconventional gas production, and why?
 - A. Diversify export destinations and create new markets
 - B. Diversify and expand domestic uses of gas (GTL, petrochemicals, etc.)
 - C. Purchase unconventional gas production and distribution assets
 - D. Adjust pricing formulas and contracts
 - E. Reduce investments in new capacity
 - F. Use existing alliances to defend prices
 - G. Scramble for market share
 - H. Ramp up flanking measures
 - I. Do nothing